



STATE OF MONTANA

Biennial Report for Information Technology

For Period FY2004-FY2005

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This is the second Biennial Information Technology Report prepared under the authority of the Montana Information Technology Act of 2001.

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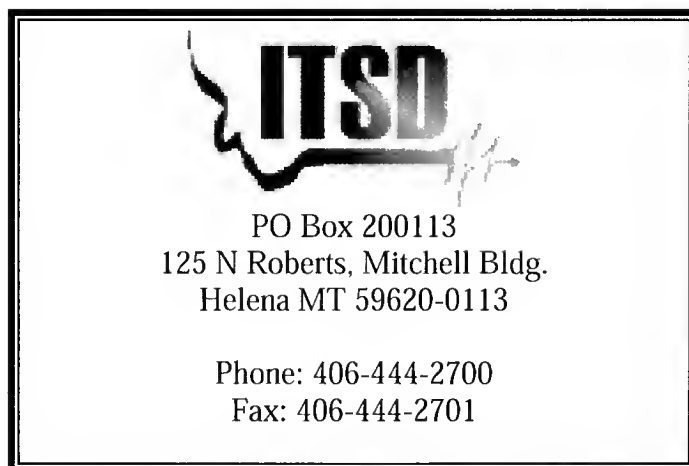
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Foreword

The Montana Information Technology Act (MITA) requires that the Department of Administration prepare a biennial report that assesses the State's progress in achieving the goals and initiatives outlined in the Strategic Plan for Information Technology. MITA also requires that the biennial report provide an analysis of the State's information technology (IT) infrastructure, including its value, condition, and capacity; an inventory of IT equipment, software and services; an evaluation of IT performance; and a summary of IT expenditures.

This document is the second biennial IT Report and measures progress against the Strategic Plan for Information Technology, which was published in the spring of 2002.

The background material for this report was obtained from four primary sources:

- The Digital States Survey, Brown University, and Gartner Research provided comparisons of Montana's IT resourced to those of other states.
- The Office of Budget and Program Services, SABHRS, and the University Banner system provided expenditure and budget data.
- The Office of Budget and Program Services and the Department of Administration provided personnel statistics.
- The Information Technology Services Division (ITSD) developed an online survey. The survey provided agency-specific IT data (infrastructure, expenditures, and progress against their strategic plans).

This report consists of three main sections:

- An analysis of the current IT infrastructure, including hardware, software, network, and personnel resources;
- An evaluation of IT performance and progress made during fiscal years 2004-2005; and
- An accounting of IT expenditures for fiscal year 2004.

We would like to thank all of the agency staff who participated in the web survey and strategic plan self-assessment. We are also grateful for the assistance from the following individuals:

- Amy Sassano, Office of Budget and Program Services, for preparing the IT expenditure and budget information.
- Barb Kain, Carl Hotvedt, Lynne Pizzini, Stu Kirkpatrick, Audrey Hinman, and Brett Boutin for authoring several sections and supplying background data.
- Mike Jacobson, Robin Trenbeath and Jody Troupe for testing the agency web survey.
- Ron Armstrong for agency survey development.

If you have any questions regarding the data reported here, or the use of information technology within the State of Montana, please contact the Information Technology Services Division of the Department of Administration. ■

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Executive Summary

This document is the second biennial information technology (IT) report required by the Montana Information Technology Act (MITA). The report measures Montana's progress against the State's IT strategic plan for fiscal 2004-2005, which was published in the spring of 2002. It also provides an analysis of the State's IT infrastructure and IT expenditures. This report is not intended as plan nor does it attempt to propose solutions. It simply reports the observable data.

Infrastructure Analysis

Information technology infrastructure is the hardware, software, people, and services that support the business operations of State government.

The State of Montana has 758 servers scattered across 211 locations. Fifty percent of the servers are located in the 11 sites that have the most environmental protections (such as locked doors, battery backups and fire suppression systems.) However, many servers are located in facilities that have minimal protections. The server equipment is being retired at a reasonable rate. Only 11% of the servers are more than 4 years old. The servers come from 11 different vendors and run 14 different operating systems. This diversity increases complexity and support costs.

Enterprise IT security has improved over the last two years. Montana has an active Office of Cyber Protection, an Enterprise Security Committee, a Computer Security Incident Response Team (CSIRT), and a successful program for virus prevention. However, Montana's IT infrastructure is not adequately prepared for a major disaster. Only three agencies are protected with hot-site recovery services that will restore a system at another location within hours. The vast majority of critical applications do not have disaster recovery plans.

Montana's e-Government investments have been recognized locally and on the national level. Montana was awarded the *E-Gov 2003 Government Solutions Center Trail Blazer Award* for its Licensee Look-up service. Fish, Wildlife and Parks was awarded the coveted *Best of the Web* award by the Center for Digital Government for their License Sales system. The Center also ranked Montana 14th in 2003/2004, up from a ranking of 38th in 2002. The State's web site, mt.gov was ranked fifth in the nation by Brown University for providing the best web access to the disabled.

Montana has taken a different approach to IT staffing compared to other states. Montana has fewer State IT staff and relies far more on external support from contractors. The average state has 6.6% of its staff in IT positions. Montana has only 5.8%. If Montana was equal to the average, the State would have more than 100 additional IT staff members. Other states spend 41% of their IT budget on internal IT staff, while Montana spends only 33%. Instead of hiring IT employees, State agencies augment their internal staff with contractors. For short-term projects this is an effective alternative. For long-term support, this can be an expensive alternative compared to internal staff. Other states devote 11% of their total IT budget to contractors: Montana allocates 32% of the IT budget to contracted services.

The Department of Administration's Information Technology Services Division (ITSD) is the central organization responsible for supporting enterprise-wide computing services and communications. ITSD's mid-tier server environment is growing rapidly. Eleven technical staff manage ITSD's 340 servers through the use of virtual servers and server consolidation. These techniques also minimize software license costs.

Montana's communications network, SummitNet II, is an integrated voice, data, and video network used by state agencies, libraries, local governments, K-12 educational institutions, and the University System. One of the major SummitNet II efforts over the last two years was the replacement of slow speed, dial-up lines with broadband speeds to remote locations. Whenever telecom carriers improve their service in remote locations, citizens and businesses in these locations benefit as well as State agencies.

Evaluation of IT Performance

Progress against the Strategic IT Plan published in 2002 is mixed. We have excelled in several areas including: using technology to enable business practices, e-Government services, and SummitNet. In a few select areas, such as shared resources, additional work is needed to identify the most cost beneficial use of IT budgets. In other areas, such as workforce development and research, we appear to be stalled. ITSD and agencies have found it extremely difficult to initiate new programs, new research, and new processes with the current limited staff and budgets. On a national scale, Montana has made significant progress relative to peer states; Montana rose more than 10 positions in several national rankings.

Agencies have reported better progress on their individual IT strategic plans. Agencies report that their complete and on-time objectives outnumber those that are behind or not started by a two to one margin.

Montana's first Strategic Plan for IT focused on best practices, especially IT project management. Two at risk, large-scale projects were halted, and project management methodologies, resources, and oversight were applied to other major projects. The Department of Revenue and Montana State Fund have delivered major IT projects on schedule and within budget. Eight other agencies and branches have major IT projects underway; they are all making good progress.

The IT processes and practices mandated by MITA are up and running. The Information Technology Board (ITB), Chief Information Officer (CIO), and the IT strategic planning, and procurement reviews have been functioning for three years. Some of MITA's policies such as minimizing unwarranted duplication and development in an organized, deliberative, and cost effective manner will require several years to realize their full potential. Agency management often does not require a comprehensive business and technical analysis of proposed IT projects. With the exception of a few internal agency efforts, Montana has not evaluated server consolidation or resource sharing.

IT Expenditures

Montana invests far less in its IT than the average state. Montana's IT expenditure is only 1.86% of all State expenditures. Other states' average IT expenses are 3.41% of all state expenditures. Montana is also not investing in its IT staff at the same rate as other states. Montana has significantly fewer staff and spends very little on staff training. The US industry average is nine times that amount. What investment is being made is being spent on contractors and consultants. Montana spends three times what other states do on contractors and consultants.

Conclusion

Information technology is a very complex subject, and this summary cannot completely capture the full scope of Montana's IT operations. We invite you to explore the full report to gain a better understanding of the success and challenges over the last biennium.

Analysis of IT Infrastructure

Montana's IT infrastructure is comprised of data centers, computer hardware, servers, personal computers, software applications, communications networks, State personnel, and private contractors. This section includes a description of the overall infrastructure within the Legislative, Judicial, and Executive branches and a description of the infrastructure within the Department of Administration's Information Technology Services Division (ITSD). The Montana University System IT infrastructure is not included within the scope of this report, except where specifically noted.

The information within this section was obtained from an agency web survey, which was conducted in November 2004. The web survey was developed by ITSD to quickly capture and compile detailed data on computer facilities, servers, applications, and progress on goals, and objectives in each agency strategic plans. The survey database was pre-filled with existing data when possible. Agencies updated the pre-filled data and added new information. Because of time constraints, limited resources and incomplete responses, the data is not 100% complete; however, the data provides a good baseline that identifies the diverse technological landscape of Montana's IT infrastructure.

Data Centers

The heart of any IT infrastructure is the facility where the computers are located: the data center. The state of Montana has numerous (211 according to the survey results) facilities that house the servers (computers), which store and run the State's software applications. Due to their critical nature, data centers typically are designed to have special environmental protections systems in place. The typical systems are listed below:

Server Protections

- HVAC (Heating, ventilation, air-conditioning)
- Fire suppression system
- Conditioned power source that eliminates voltage drops and peaks
- Battery backup for power during temporary power outages
- Generator for an alternate power source over extended periods
- Locked/controlled access

There appears to be a great disparity among the levels of protection installed for the State's data centers. The larger data centers typically have most of the standard protective systems listed above; however, many of the smaller data centers have few or none of the critical protective systems in place. Some data centers are located in an office closet, back room, or other inconspicuous, unlocked space.

A breakdown of the servers having protective systems is shown in Figure 1. According to the survey, the State has 758 servers, housed in 211 different data centers. Two thirds of these data centers have minimal environmental protection systems. Fortunately, half of the State's servers are located in the 11 sites that have the most protections.

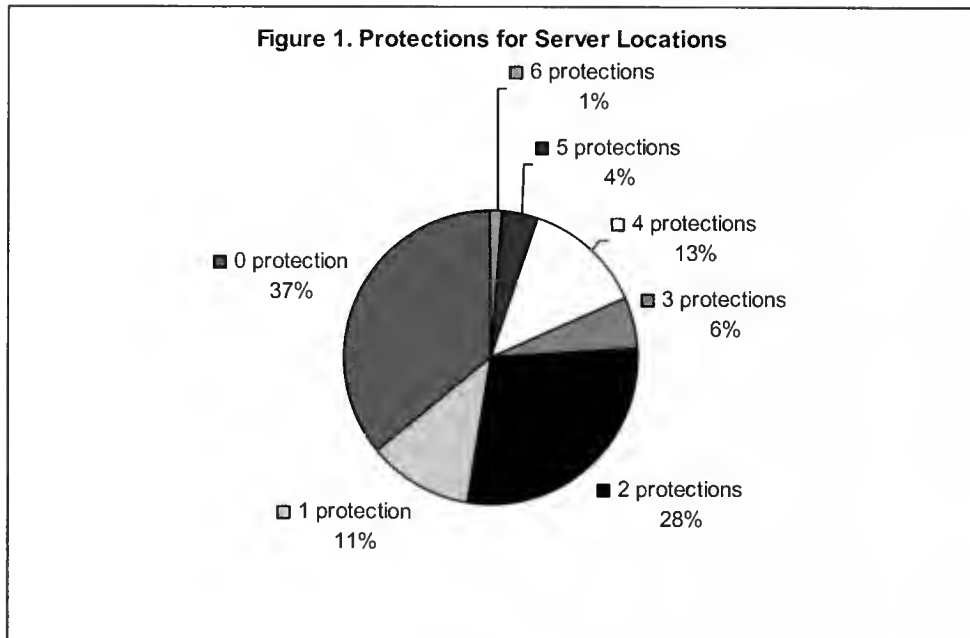
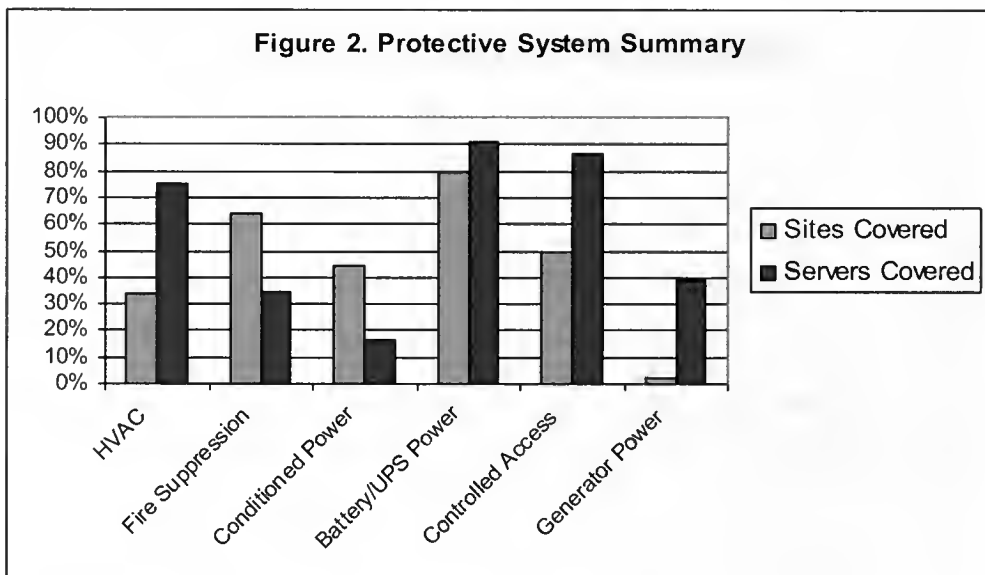


Figure 2, below, illustrates the percentage of servers and sites covered by the typical protective systems: HVAC (heating, ventilation, air-conditioning), fire suppression systems, conditioned power source that eliminates voltage drops and peaks, battery backup for power, locked or controlled access, and generator backup.

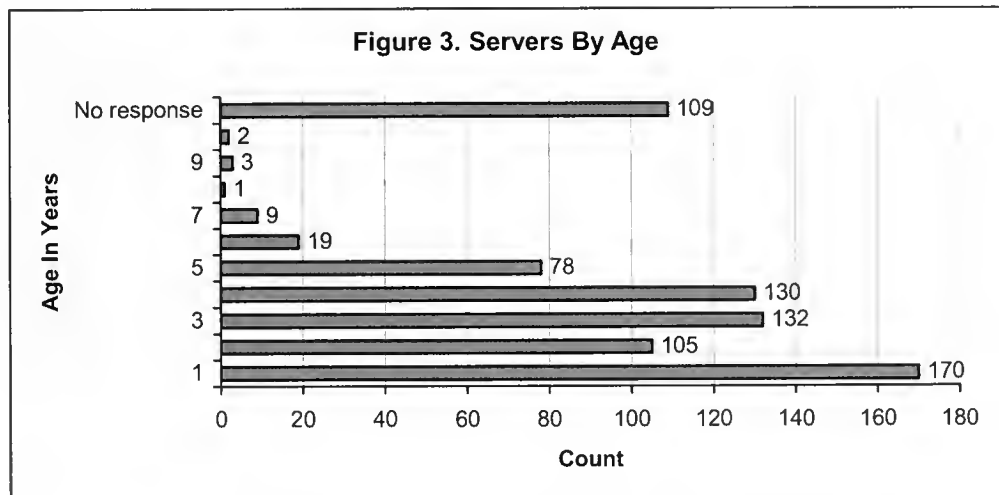


Servers

By definition, a server is a multi-user computer that provides a specific type of service to client software running on other computers -- usually PCs. For our purposes, the term server refers to a physical computer on which service software is running. A single server may have one or many applications running on it; therefore, the server may provide many different services to many different users on a network. Servers in this report include everything from a large mainframe down through mid-tier size servers and include large desktop computers if they are operating as a server.

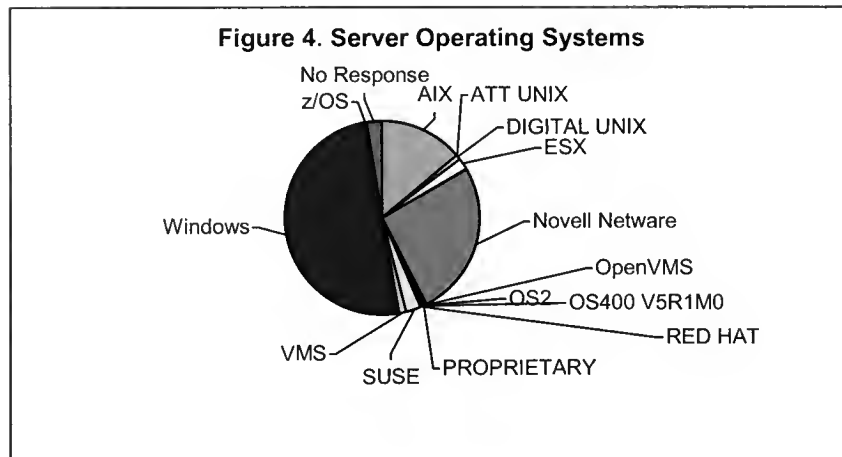
Age

Of the 758 servers identified within the survey, 83% are four years old or newer. Eleven different vendors provide the server hardware with Dell (54%) and IBM (19%) being the dominant providers. Figure 3 illustrates the age distribution of the servers identified within the survey.



Operating Systems

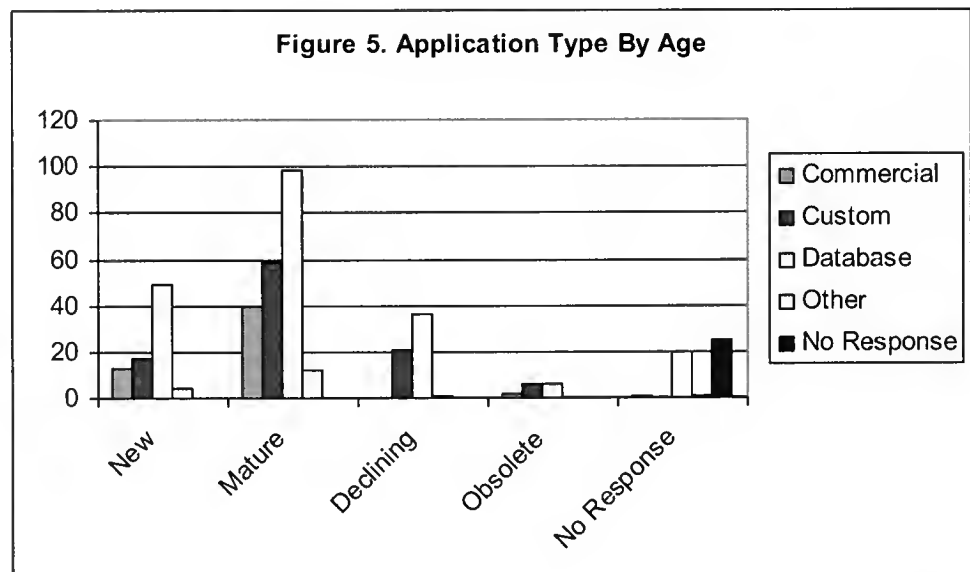
The operating system controls the other application software running on the server. Presently, Windows is the predominant server operating system within a diverse enterprise landscape. (See Figure 4.) This diversity contributes to the complexity of the enterprise and the complexity associated with providing support and planning future growth strategies.



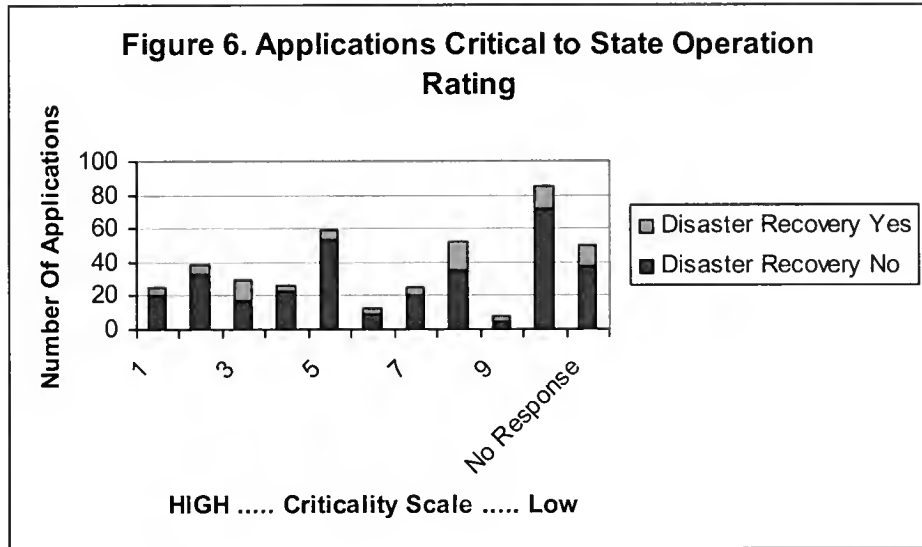
Applications

Applications are software that can include single-user desktop applications to large system-wide applications and business-related utilities used by many users. Applications are used to carry out the wide variety of functions performed by state government agencies. These functions support internal, state-related business processes as well as external, public-related business transactions. The survey data does not reflect the single-user applications.

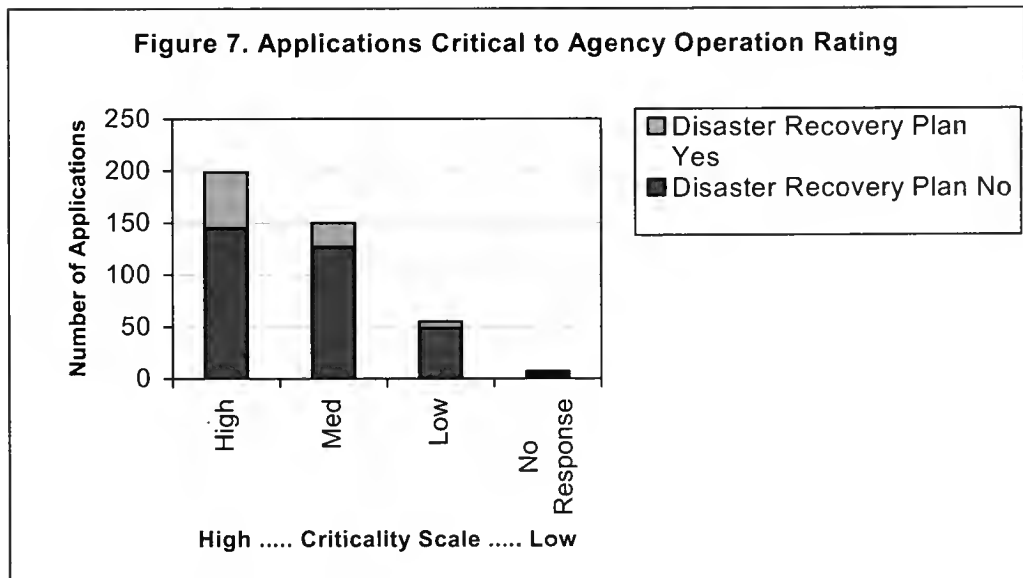
Figure 5 relates to 413 higher-end applications that were reported in the survey and illustrates the age of the applications. Additionally, it presents this information by application category: **commercially** available and procured, **custom** built, or a **database** (data storage) application.



Applications were also rated for their level of criticality to the continued operation of State business. The respondents were also asked to indicate whether the application had a disaster recovery plan in place. As illustrated in Figure 6, 79% of the applications do **not** have a disaster recovery plan. A ranking of 1 on the chart indicates that these applications are considered most critical; a ranking of 10 indicates that they are least critical.



The applications were also rated for their level of criticality to the continued operation of the agency business. A scale of high, medium, or low was used. The agency rating, along with the disaster recovery plan coverage is illustrated in Figure 7. Of those applications considered to be highly critical to the agencies' operation, 73% do **not** have a disaster recovery plan.

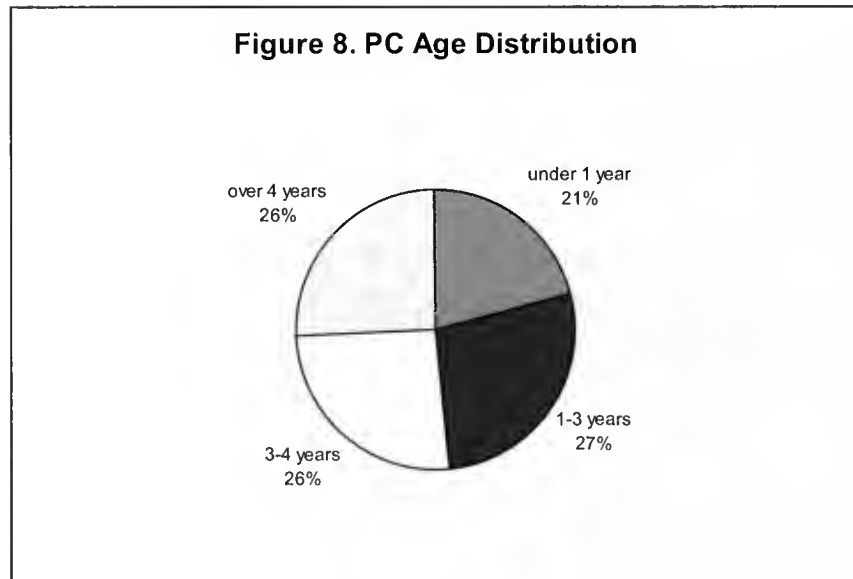


Finally, the applications were assessed to determine if they are accessed via the web and whether they are available for public access. In total, 29% were reported to be access via the web, and 12% were reported to be available for the public.

Desktop Computers

The number of older PC's in the State's inventory has nearly tripled since the last report. This aging was a direct result of agency decisions to apply budget cuts in IT in their PC replacement plans. PC numbers have increased slightly and laptop and portable PCs are becoming more common. Montana currently has 10,500 PCs (this includes desk tops, lap tops, and portable PCs.)

The State's PC-standard is based on IBM and IBM-compatible equipment and selected software. The State has a term contract with IBM, Dell, and HP for PC acquisitions. Most agencies have a four-year replacement cycle for PCs, and PC age distribution is reflected in Figure 8.



The State standards for PC operating systems are Windows 2000 and Windows XP. The supported desktop software standard is Microsoft Office 2000 and Office XP. MS Access is the desktop database software standard for small applications

Montana will be facing a major decision in the near future. The State decided to skip a version of Microsoft Office and not upgrade to Office 2003. The increase in functionality did not justify the multi-million dollar price tag. However, support from Microsoft for Office 2000 is being phased out. While Microsoft will be offering security updates, customers will have to pay for all other support. The cost to upgrade to a more recent version of Office is approximately \$2.5M. The State is investigating a variety of options including use of "open source software" as a possible alternative for Microsoft's Office suite, desktop operating system, and desktop management tools.

Enterprise Security

The State has made great strides in the area of enterprise security in the last two years. The Office of Cyber Protection (OCP) was established in 2004 to deal with the increasing number of cyber security threats.

Table 1 shows the increase in virus activity that has occurred on the State of Montana's computer systems. Significant increases have been seen, and this upward trend will likely continue in the years to come. The *Number of Incidents* shows the number of e-Mails that were infected and successfully blocked by the State's e-Mail protection software. The *Number of Infections* is the number of computers that were infected and required remedial action to eliminate the virus.

Table 1. Virus Activity			
Year	Number of Incidents	Number of Infections	Examples of Viruses Identified
1997	93		
1998	265	48	
1999	2049	89	Melissa
2000	6786	184	ILOVEYOU
2001	53,358	76	NIMDA, Code Red, KAK, SirCam, Magistr
2002	238,154	11	Klez, Bugbear
2003	1,148,434	625	SoBig, Slammer, Nachi, Blaster
2004	1,540,295	36	

Risk Assessment

The Office of Cyber Protection has implemented a risk assessment methodology to address the growing threat of cyber attack. As a result, policies and controls have been established to provide cost effective mitigation techniques and control measures. Additionally, since risks and threats change over time, it is important that the State periodically reassess the risks and reconsider the effectiveness of its mitigation strategies. This technique has proven effective in providing the level of protection required to meet the changing and growing threat.

Enterprise Security Committee

In November 2002, the Enterprise Security Committee was established. This group meets on a monthly basis to review policies, establish security guidelines, make recommendations on the direction of security applications, and discuss current security threats and issues. The group consists of at least one representative from each agency and provides a mechanism to discuss security issues and resolutions at length.

Business Continuity

The State has improved its business continuity planning extensively over the past two years. A group consisting of representatives from ITSD, General Services Division (GSD), Disaster and Emergency Services (DES) and members of the Governor's Homeland Security Task Force has worked extensively to establish the Continuity of Government Plan. From this plan, ITSD has molded its Incident Command Structure known as the Computer Security Incident Response Team (CSIRT). This team consists of managers as well as other key personnel including agency representatives.

The CSIRT was established as an enterprise work group to respond to enterprise information technology incidents. An incident is an event that affects a large group of people or disrupts services to a number of critical applications or clients hosted by ITSD. This team is brought together to address incidents in a timely and orderly manner to restore critical enterprise systems as quickly as possible.

State security officers are also working to create their own disaster recovery plans. Unfortunately most agencies have no formal arrangements for recovering critical systems at a backup location. (Refer to Figures 6 & 7 on page 5.)

Information Security Best Practices

The State is striving to accomplish best practices in the area of information security and protection against virus attacks. However, one area that needs improvement is installing software updates to desktop operating systems, applications, and virus protection products. This continues to represent a challenge because of the numerous and decentralized locations. A major virus outbreak on August 12, 2003, required a software update to be implemented on every State computer. In some cases, five or six IT staff had to travel to individual sites and install the necessary updates. This event prompted the State to develop the Emergency Virus Cleaning and Patch Management Process, which was tested in October 2004. All agencies will need to participate to realize the full benefits of the plan.

e-Government

Today there are more than 60 major e-Government services available to citizens and businesses, and more are being added monthly. Most of these services are available through the State's web portal. In an effort to improve security on government web sites, the Federal government has mandated that all states adopt a domain-naming scheme that uses a **.gov** extension. We have changed the name of the State web portal from DiscoveringMontana.com to **mt.gov**. Some of the major citizen centric solutions available on the web are:

- Montana Professional Licensing: One-Stop Licensing
- Department of Corrections: Convicted Offender Network
- Department of Fish, Wildlife and Parks: e-License Sales
- Montana State Fund: e-Business Portal
- Secretary of State: Business Entity Search

A major project currently under development is a single sign-on service for MT.gov called e-Pass Montana. This is one of the most significant projects for Montana's e-Gov initiative and it will be the single point of access for all secured services for both state and federal government services that require the ability to pay online without worry of fraud or identity theft.

Montana's e-Gov initiative focuses on being citizen and business centric. Customer input is a major factor during development and maintenance of the services. Most services have a feedback form and a "contact us" option for customer input and feedback. Several customer satisfaction surveys have also been conducted to assess how well agency and customer needs are met by the services.

The Governor has established an official standard for the "look and feel" of Montana's e-Government services. This standard provides common terminology, button placement and footers. This consistent look and feel conveys to customers that they are on an official state services site and are transacting business with the State.

e-Government services were promoted during the fiscal year through a variety of channels: industry newsletters, radio ads, direct mailings, trade shows, brochures, a Face-the-State interview with CBS, print ads, an interview on the KBLL-FM radio show "Coffee Break" with Jay Scott, presentations at local business meetings, and a feature story in the Helena Independent Record.

Montana's e-Government efforts have been recognized locally and on the national level. Montana was awarded the *E-Gov 2003 Government Solutions Center Trail Blazer Award* for its Licensee Look-up Service. The License Sales for Fish, Wildlife and Parks was awarded the coveted *Best of the Web* award by the Center for Digital Government. The Center also ranked Montana 14th in 2003/2004, up from a ranking of 38th in 2002. Brown University ranked Montana 33rd among all states in 2004, up from a ranking of 43rd in the 2003 study. The State web site was ranked fifth in the nation by Brown University for providing the best web access to the disabled.

In fiscal year 2004, the e-Government services contractor, Montana Interactive Inc. (MII), delivered 15 new services, worth approximately \$800,000, at no cost to the State. This was accomplished through a unique funding model called a self-funded portal where costs are recovered through transaction fees assessed on approximately 10% of the services offered.

Geographic Information Systems

Montana's Strategic Plan for IT contains an initiative to advance Geographic Information Systems (GIS). These systems gather, process, store, and display information about natural resources, land ownership, roads, legal boundaries, critical facilities, and other data which has a geographic aspect to it. Approximately 80% of State and private business transactions in the state of Montana have geographic data associated with them.

Coordination in the GIS arena is required between local, state, federal, tribal and private entities to avoid duplication in data collection. Furthermore, existing data needs to be merged into multi-jurisdictional databases and standards need to be set to accommodate ongoing data maintenance from multiple sources.

During the last year, significant progress has been made in the Montana GIS arena to meet these needs. A summary is provided below:

- The data for 25 counties has been entered into the Road Centerline Database, which contains road centerline data from local governments, state government, federal agencies, tribal governments, and some private companies.
- The Addressing Pilot Project was initiated. This project is merging the address data from four local and tribal jurisdictions into one common data model. The results of this project will establish a statewide, standardized address model that will enable point mapping of addresses from textual (non-GIS) databases.
- The Montana Association of Geographic Information Professionals (MAGIP) was formed. This new association represents the merger of several existing GIS groups. The results of the merger were greater efficiency, better communication, and increased educational and technical outreach.
- Homeland Security funds paid for the collection of high-resolution color imagery of 17 Montana cities. This imagery will be stored and disseminated at the Geospatial Clearinghouse at the Montana State Library. More imagery was obtained than originally possible for Yellowstone, Park, Ravalli, and Flathead counties due to the availability of state funds.
- Montana collected statewide databases of schools, airports, medical facilities, and emergency facilities using Homeland Security funds.
- ITSD, BLM and Gallatin County partnered to collect approximately 90 survey-grade coordinates on Public Land Survey (PLS) monuments. These coordinates were used to adjust the Geographic Coordinate Database. These adjustments significantly improved the accuracy of the Gallatin County Cadastral Database.

Despite these successes, core gaps remain in the geospatial infrastructure. Funding is a major impediment. Few funding sources are available to pay for maintenance of existing data or to leverage federally funded matching opportunities. The Montana Land Information Act if adopted by the 2005 legislative session would enact an additional fee on land related recorded documents, such as deeds and certificates of survey to provide such a source to meet the ongoing and increasing needs around GIS in Montana.

IT Personnel

The Legislative, Judicial, and Executive branches currently employ approximately 725 staff to support their IT systems. The University System is not included in this total. Comparisons to earlier published numbers are impossible because all IT employees were reclassified in the spring of 2004. Many staff members with secondary IT responsibilities were reclassified into non-IT positions. Montana also augments its internal staff with IT contractors. In fiscal year 2004 the State spent more than \$34.9M on private IT contractors.

State Staff

Approximately 5.8% of all State employees are classified as IT staff. The percentage of IT staff varies widely from agency to agency. Gartner Research provides statistics that provide a comparison to other states. The data in Table 2 was extracted from Gartner's 2004 IT Spending and Staffing Survey, October 2004.

Table 2. Spending and Staffing Survey, October 2004	
Industry	Percentage of IT Employees
All industries	5.12%
Construction	.85% - 1%
Higher Education	4 % - 5 %
Insurance	7.3 %
Social Services	2.5 %
State Government	6.6 %
Montana State Government	5.8 %

Gartner's research also shows that state governments spend approximately 41% of their IT budgets on internal IT staff. Montana spends 33% on internal IT staff. Montana would need approximately 100 additional IT staff to reach the average state staffing levels.

Table 3 on the following page summarizes the agency IT staff counts and expenditures.

Table 3. Agency IT Staffing Expenditures - Fiscal 2004

	Agency	State IT Staff	Contracted Services	Total IT Staffing	IT staff count	Agency FTES	IT staff %
1104	Legislative Branch	686,676	190,575	877,251	10	125	8.0%
1112	Consumer Counsel			0	0	5	0.0%
2110	Judicial Branch	765,405	109,025	874,430	15	375	4.0%
3101	Governor's Office	34,749	2,025	36,774	1	57	1.8%
3201	Secretary of State's Office	199,007	163,095	362,102	4	51	7.8%
3202	Commissioner of Political Practices		450	450	0	4	0.0%
3401	State Auditor's Office	135,994		135,994	3	72	4.2%
3501	Office of Public Instruction	959,336		959,336	22	151	14.6%
4110	Dept of Justice	1,825,579	2,427,932	4,253,511	42	732	5.7%
4201	Public Service Regulation	102,893		102,893	2	39	5.1%
5101	Board of Public Education			0	0	4	0.0%
5102	Commissioner of Higher Education	172,035		172,035	4	97	4.1%
5109	Ag Experiment Station	272,946	823	273,769			
5110	Extension Service	93,820	609	94,429			
5111	Forestry & Conservation Exper. Station	152,032		152,032			
5112	Bureau of Mines			0			
5113	School for the Deaf & Blind	35,605		35,605	1	82	1.2%
5114	Montana Arts Council	44,783	15	44,798	1	7	14.3%
5115	Library Commission	627,578	10,966	638,544	18	46	39.1%
5117	Montana Historical Society	71,649	723	72,372	0	68	0.0%
5119	Fire Services Training School			0			
5201	Dept of Fish, Wildlife & Parks	1,281,033	1,544,603	2,825,636	45	627	7.2%
5301	Dept of Environmental Quality	1,303,325	191,001	1,494,326	35	419	8.4%
5401	Dept of Transportation	3,681,406	2,776,707	6,458,113	77	2294	3.4%
5603	Dept of Livestock	92,910	2,330	95,240	3	145	2.1%
5706	Dept of Natural Resources & Conser.	604,748	15,801	620,549	10	486	2.1%
5801	Dept of Revenue	1,942,663	4,294,117	6,236,780	37	643	5.8%
6101	Dept of Administration (excluding ITSD)	507,322	489,828	997,150	12	328	3.7%
6102	Appellate Defender			0			
6103	State Fund	2,515,036	1,958,000	4,473,036	26	268	9.7%
6104	Public Employees Retirement System	147,632		147,632	4	34	11.8%
6105	Teachers Retirement System	123,571	105,045	228,616	2	16	12.5%
6201	Dept of Agriculture	219,917	31,048	250,965	5	111	4.5%
6401	Dept of Corrections	888,665	19,995	908,660	22	1158	1.9%
6501	Dept of Commerce	540,815	125,447	666,262	11	193	5.7%
6602	Dept of Labor & Industry	3,150,221	2,271,710	5,421,931	72	747	9.6%
6701	Dept of Military Affairs	136,817		136,817	3	186	1.6%
6901	Dept of Public Health & Human Services	3,596,807	17,134,570	20,731,377	75	2805	2.7%
	Total	\$26,912,973	\$33,866,440	\$60,779,413	562	12374	4.5%
6101	Dept of Administration (ITSD only)	\$11,162,039	\$1,005,246	\$12,167,285	163	195	83.6%
					725	12,569	5.8%

Notes:

- DOA/ITSD is separate since some agency IT expenses are charges paid to ITSD. Including ITSD in the total double counts all agency expenditures paid to ITSD.
- The Legislative Branch supports an additional 40 temporary staff in odd numbered years.
- The Judicial Branch supports an additional 525 county employees.
- Not all agencies code IT consulting services with SABHRS code 62136. Some use 62102, consulting and professional services. Therefore column B, contracted services, may be understated.

Contractors

The State's IT infrastructure is heavily dependent on information technology contractors for implementing and providing ongoing support of IT systems. Montana expends almost three times as much on contractors as the average state. The \$34.9 million that Montana spent on IT contractors represents 32% of all IT expenditures for the State. The average for state organizations in Gartner's survey was 11%.

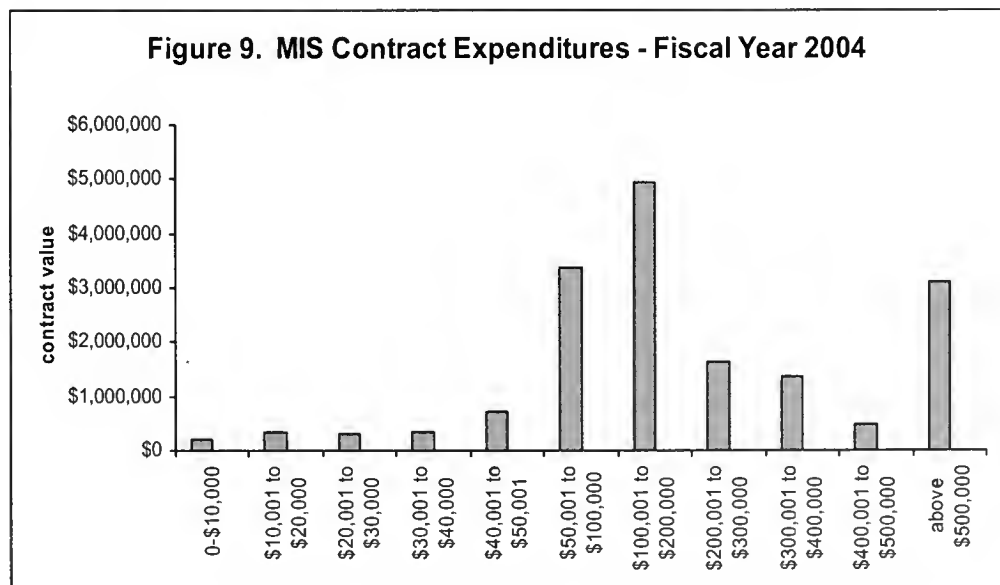
Contractors are used for a wide variety of tasks from the identification of system requirements to programming, testing, and maintenance throughout a system's lifecycle. Contractors are used when highly technical skills are absent or unavailable within state government, or existing state staff simply do not have the time available to absorb more work. Contractors are often used for short-term projects when an agency cannot commit to hiring permanent state employees. Also, a contractor may be the best solution to a temporary need for a rare and expensive skill. Occasionally, contractors are used for routine projects even when the project support extends for many years. Contractors are employed through several channels, which are described below:

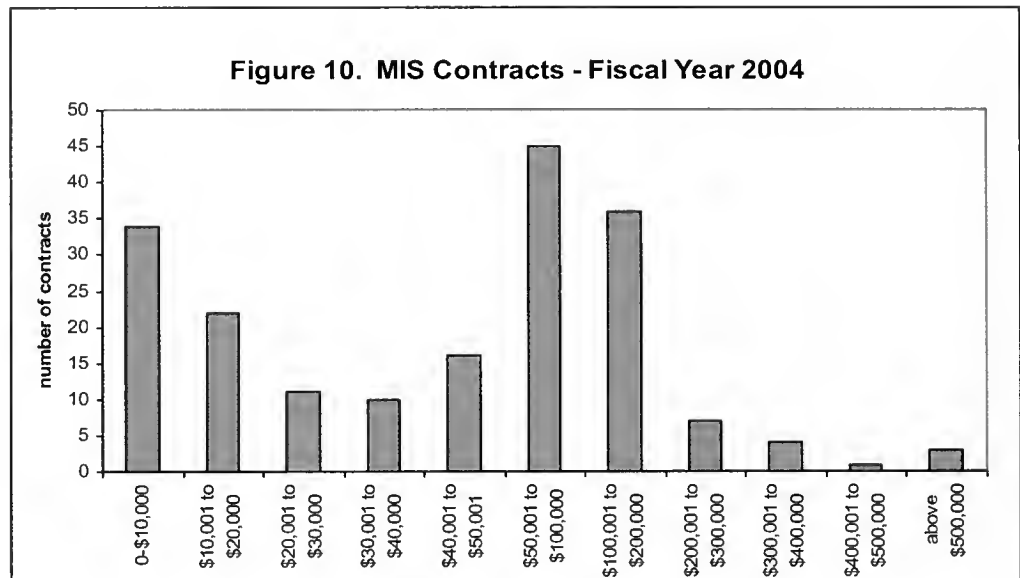
- **RFP**

A common practice is for an agency to issue a Request for Proposal (RFP). The process is formal and tightly controlled to ensure fairness and value. The process can take several months, from the development of the RFP, publication, evaluating formal responses, scoring, and the final negotiated contract for services.

- **Management Information Services Term Contract (MIS)**

In 1993, the State developed an alternative to the time consuming RFP process. On a periodic basis, contractors are invited to qualify their firms for listing in any of 23 IT service areas. Agencies are free to select any vendor who has qualified in the area where they need assistance. The program has been a huge success. Fifty contractors are currently listed and \$10.6 million of contracted work was completed in fiscal year 2004. The vast majority of the expenditures were for large contracts over \$100,000. Figures 9 and 10 show the monetary value and number of MIS contracts.





- **Small Project Professional IT Services Provider Contract**

This contracting method was developed in 2001 to offer smaller firms with skilled staff the opportunity to compete for state business. The primary qualification criteria were individuals' IT experience rather than a firm's large pool of available IT talent. The program currently has 235 individuals listed from 50 firms covering 21 IT service areas. In fiscal year 2004, \$2.6 million was spent through this contracting method.

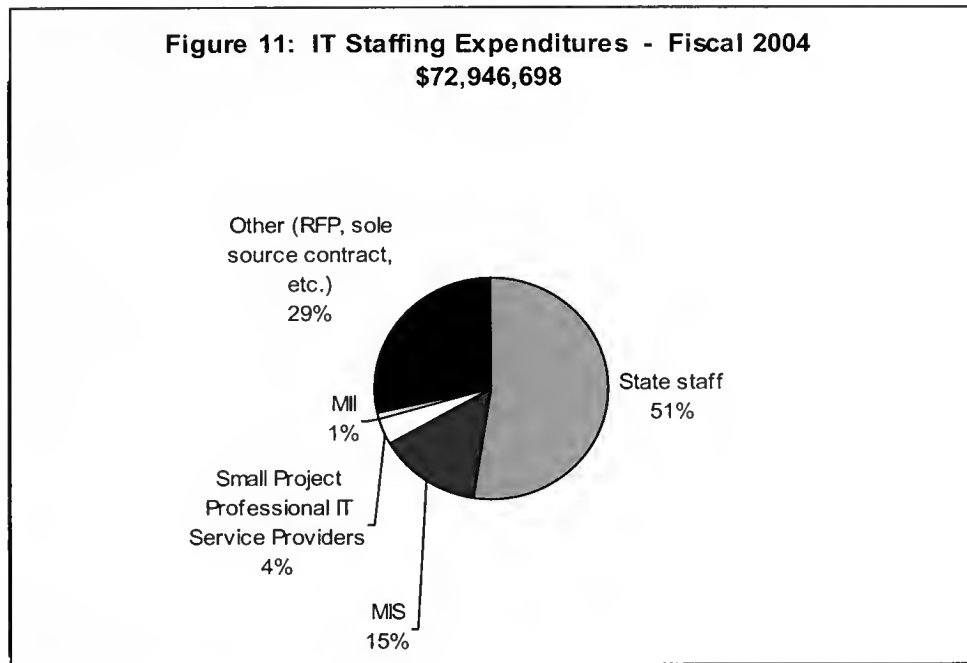
- **e-Government Services Contract**

In January 2001, the State developed the e-Government Services Contract as a vehicle to quickly implement web-based applications. The contract is with Montana Interactive Inc. (MII). This contract is unusual in that MII is not immediately compensated for its services. They receive payment through user fees and transaction fees which do not come from agency budgets. Individual Statements of Work (SOWs) are executed to cover specific applications and functions. Since its creation, MII has worked on 41 different projects and delivered an estimated \$2.9 million of value – but at no direct cost to the state of Montana.

Details on individual contractor expenditures and MII projects are detailed in Appendix A and Appendix B.

Individual agencies have different business philosophies and practices relative to using contractors. Some agencies believe they conserve budget dollars and retain better control by performing almost all tasks with internal state personnel. Other agencies contract out a large percentage of their projects. On a statewide basis the Montana's IT personnel dollars are almost evenly split between internal staff and contractors. According to Gartner's 2004 IT Spending and Staffing Survey, other states spend four times as much on internal staff as contractors.

Figure 11 provides a breakdown of the IT labor dollars expended during fiscal year 2004. Although the e-Government (MII) work is included, state funds were not required for those projects.



Staff Augmentation

In 2003 ITSD compiled figures on the hourly costs of employing State personnel vs. hiring a contractor. The research was limited to skills that are routinely found within existing State positions. When contractors are used, the effort is commonly referred to as "staff augmentation." The dollar amounts listed below are based on a sample of over 12,000 contracted hours. The average rate for the contractors was an average of the approved MIS Term Contract rates. In many cases staff augmentation contractors are housed within State facilities, receive the same support services as State employees, and are managed similar to State employees, so fully burdened costs (office space, furniture, utilities, management, etc.) are equivalent.

Average State IT employee cost/hour:

• Average pay (including longevity)	\$ 20.93
• State benefits (21%)	\$ 4.39
• Adjustment for sick/annual leave & holidays	\$ 3.14
Total average State employee cost/hour	\$ 28.46

Average contractor rate/hour

\$ 75.10

Information Technology Services Division (ITSD)

The Information Technology Services Division (ITSD) of the Department of Administration serves as the centralized information services organization for the State of Montana. ITSD manages a variety of enterprise level services. Services provided to state government include the telecommunications network, e-Mail (Microsoft Exchange), financial and human resources (SABHRS) applications, mainframe services, Customer Service Center (helpdesk and notifications) and security services provided by the Office of Cyber Protection. Enterprise level solutions available to all agencies include:

- Database hosting
- Web site hosting
- Interactive Voice Response (IVR) hosting
- Imaging services
- Geographic Information System (GIS) services
- LAN Administration
- Desktop Support
- Telephone Conferencing
- Video Conferencing

Data Center

The ITSD data center is housed within the Mitchell Building. The data center has operators on duty 24 hours a day, 7 days a week. Fire suppression systems protect the data center, while UPS battery backup units insure system uptimes. Locked access doors prevent unauthorized physical access to the hardware. The UPS battery backup system is being augmented with a dual generator backup power facility. Construction of this facility is expected to be complete by April of 2005.

Regardless of the size, or type of computer system hosted in the data center, all production systems are protected by rigorous back-ups. The back-up tapes are stored off-site in fully protected vaults. Additionally, off-site disaster recovery services are provided for in case of a catastrophic failure of any type. ITSD's contract with Sungard provides a hot-site in Chicago where systems can be restored within 48 hours of a disaster at the Mitchell Building.

Mainframe Computers

ITSD operates an IBM zSeries 800 mainframe computer with an automated tape library/virtual tape library, high capacity laser print subsystem, and mailer/sealer equipment. This computer is housed in the ITSD data center. This mainframe supports a variety of applications including:

- Vehicle Titling & Registration system (Department of Justice)
- MOTRS (Department of Transportation)
- Federal Billing Voucher (Department of Transportation)
- Individual Income Tax system (Department of Revenue)

- Public Employee Active and Retiree systems (MPERA)
- The Economic Assistance Management System (TEAMS – Department of Public Health & Human Services)
- System for the Enforcement and Receipt of Child Support (SEARCHES – Department of Public Health & Human Services)

The mainframe also supports a tape back-up system that utilizes an automatic tape library (ATL), the printing subsystem, the job scheduling system and the alert notification system. These services are provided for the mainframe as well as the mid-tier environments.

Many of the current mainframe applications are relatively old, and their replacements will probably not be designed to run on the mainframe. With this in mind, ITSD is currently testing the Linux operating system on the mainframe. Linux is an Open Source operating system that will allow the mainframe to support applications that are currently running on mid-tier servers.

Mid-Tier Computing Environment

ITSD also houses more than 190 mid-tier servers hosting more than 340 physical or virtual servers in the data center. With appropriate software, dozens of virtual servers may reside on a single physical server. Users are unaware they are not running on a dedicated server. ITSD uses this technique to reduce the number of servers, simplify management, and minimize software-licensing costs. ITSD's mid-tier group has only 9 system administrators managing the 340 servers. The larger databases and applications predominately use IBM p-series servers running UNIX. Smaller applications and web sites typically run on Windows Intel servers.

There are a variety of applications currently in production in the mid-tier environment including:

- Legislative Automated Workflow System (LAWS - Legislative Branch)
- Automated Licensing System (ALS – Department of Fish, Wildlife, and Parks)
- Air Quality System (Department of Environmental Quality)
- One-Stop Licensing System (Department of Revenue)
- SABHRS (Department of Administration)
- Travel Promotion database (Department of Commerce)
- UI Benefits System – MISTICS (Department of Labor & Industry)

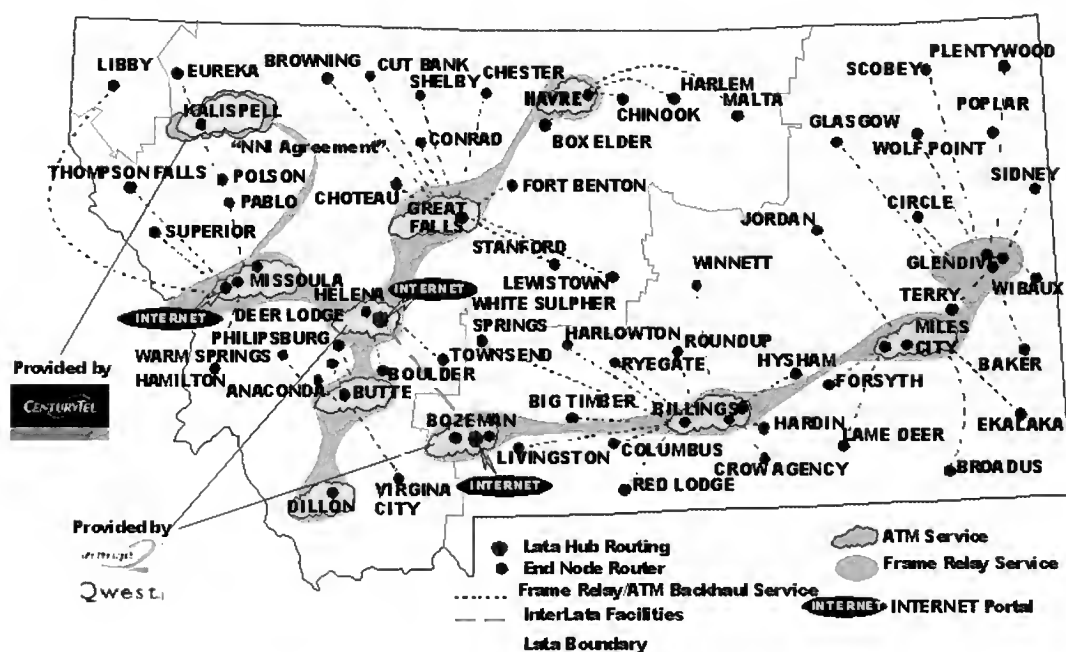
The mid-tier environment has experienced tremendous growth in the last two years, and this growth is expected to continue. Over the last two years ITSD focused on virtual servers for management efficiency and clustering for high availability. Server consolidation will be a strategy in the next few years.

Telecommunications Network

Infrastructure

SummitNet II is the integrated voice, data, and video network used by government agencies, libraries, local governments, K-12 educational institutions and the university system. Multiple telecommunications carriers throughout the state provide SummitNet II. High-speed ATM switches located in many of the larger Montana urban areas connect their respective communities and university campus' together. Additionally, VisionNet has deployed ATM switches in additional communities not supported by Qwest via their independent network of telephone service providers. Refer to Figure 12 for a network map.

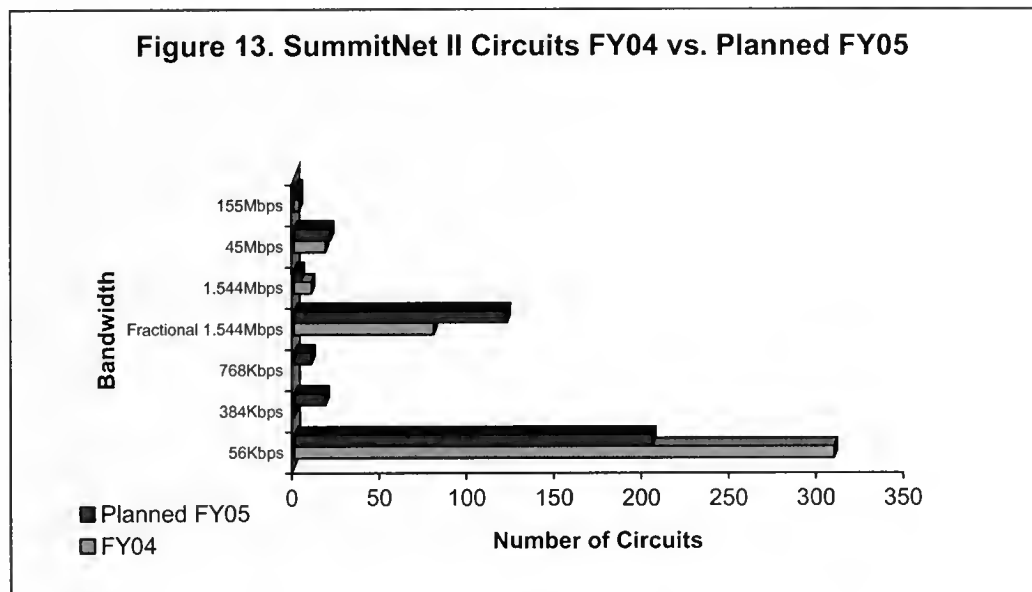
Figure 12. SummitNet II



There are two high-speed connections between the Helena Capital Complex and the State's major telecommunications carriers, Qwest and VisionNet. These circuits are carefully monitored and protected by the Office of Cyber Protection (OCP) within ITSD. OCP manages intrusion detection, spam detection and virus scanning systems to protect desktops, servers and applications residing on the network.

As can be seen in Figure 13, the majority of remote SummitNet II connections are currently 56Kbps (56,000 bits per second) frame relay. The State has been working with the Qwest and VisionNet to obtain higher speed connections. As a result of these efforts, Qwest expanded frame relay services to Lewistown, Shelby, Cut Bank and Conrad. These new services have upgraded remote connections from 56Kbps to 1.544Mbps (1,544,000 bits per second) while lowering costs at the same time. During the same time period, VisionNet agreed to expand DSL service into many remote communities serviced

by its members. In FY 2005 it is anticipated that 50% of the existing 56Kbps frame relay connections will be replaced by higher bandwidth, more cost effective alternatives.



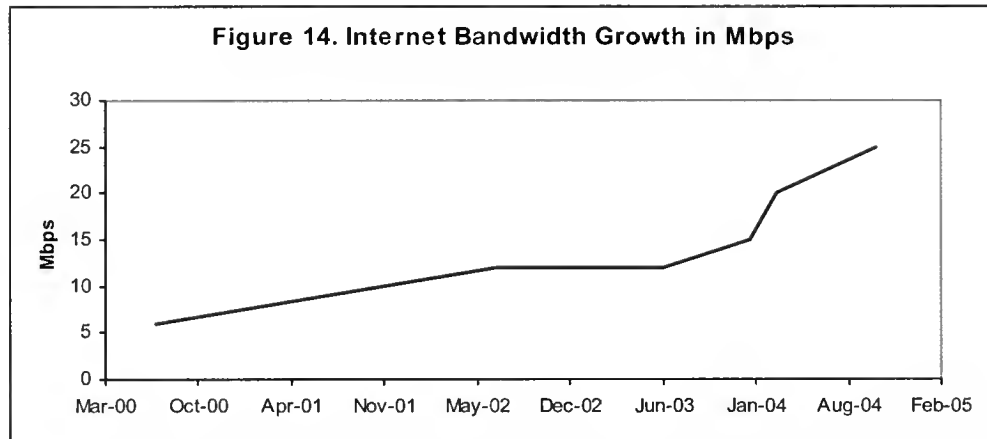
The impact of these upgrades to bandwidth capability cannot be overstated. As telecommunications providers extend higher bandwidth solutions into remote areas in support of the State of Montana's needs, those services also become available to businesses and residential users in those communities. Higher bandwidth means higher productivity and reduced costs not only for the state government, but also the community where the service is provided. The amount of bandwidth available directly impacts a user's ability to perform different functions. For example, large graphics and file downloads require more bandwidth.

Voice

On the voice side of the network, 33 Private Branch eXchanges (PBX) and 246 smaller key systems connect to SummitNet II to provide traditional voice services for the State. (Refer to Appendix C for a detailed PBX switch inventory.) Voice PBX and key systems have a much longer life than data servers. Some are used for more than 20 years. Individual components and software are upgraded within the same chassis. Features and functionality of newer systems including Voice Over Internet Protocol (VOIP) are becoming mature while costs are dropping. VOIP allows the transfer of voice traffic over lines that are typically used for data traffic. The Internet is currently carrying voice traffic through VOIP. Proper planning based on accepted standards should ensure the State's continued success in its use of its telecommunications infrastructure to reach across Montana.

Internet Access

Up until January of 2004, the State's Internet utilization grew at a modest but steady rate. As can be seen in Figure 14, by July of 2003 the growth started to accelerate. This growth mirrors the growth in Montana's e-Government services as well as a greater dependence on the Internet as a means of conducting research, communicating, and an increasing amount of electronic data being sent to citizens, federal agencies, and private companies. Use of the Internet as a key strategic communications vehicle will continue to fuel its rapid growth. This trend is not expected to change in the foreseeable future.



Because the Internet is becoming such an integral part of everyday business in every State agency, a second Internet access point in Billings was added as a backup in case the primary link fails.

Interactive Video

The Montana Educational Telecommunications Network (METNET) is an H.23 (a national transmission standard for video data) compliant subscription service that supports both State agencies' and the university system's delivery of two-way interactive distance learning classes, hearings, and meetings. The system uses the SummitNet II infrastructure to connect 16 conference facilities in 13 cities across Montana as shown in Table 4.

Table 4. METNET Facilities and Capacities		
City	Seating	Location
Billings	24	Montana State University
Boulder	10	Montana Developmental Center
Bozeman	30	Montana State University
Butte	36	Montana Tech of the University of Montana
Deer Lodge	12	Montana State Prison
Dillon	35	Western Montana College of the University of Montana

Great Falls	24	Montana State University College of Technology
Havre	18	Montana State University—Northern
Helena	25	Helena College of Technology of The University of Montana
	16 - 150	Department of Public Health and Human Services
	10 – 60	Department of Transportation
Kalispell	30	Flathead Valley Community College
Miles City	40	Miles Community College
Missoula	40	University of Montana
Warm Springs	20	Warm Springs State Hospital, Admissions/Receiving

METNET not only allows people in these 13 cities to video conference with each other, but it also allows people in any one of these locations to hold interactive conferences with sites not on the State network. Existing connections are available to an additional 90 sites associated with the following Montana organizations.

- Montana Tribal Colleges
- Eastern Montana Telemedicine Network (EMTN)
- VideoLink of St. Peter's
- Reach Montana Telemedicine Network
- Montana Partners in Health Telemedicine Network

Additionally, Sprint and AT&T offer wider access to national and international locations.

In 2003, ITSD completed a strategic planning process for the delivery of interactive video services. Representatives from State agencies, the university system, and private sector service providers attended forums to discuss an enterprise approach for implementing interactive video solutions. METNET has been revamped to meet those criteria. Despite the clear economic advantage of video over travel for meetings, agencies have not utilized video conferencing as a viable alternative. Except for the Department of Administration and the Department of Transportation, agencies have not used video conferencing to any great extent.

The Judicial Branch has a separate contract with VisionNet for video services in 33 courts across Montana for interactive video services. This access is outside of SummitNet II.

Evaluation of IT Performance and Progress

Evaluating the State's progress against The Strategic Plan for IT 2004-2005 is a qualitative more than a quantitative evaluation. The 2004-2005 Plan is a strategy document. It is not a tactical document that typically has specific performance measurements for each goal and objective. Nevertheless, it is possible to identify activity levels and review strategic directions and resource allocations.

Three methods were used to identify progress and activity levels. The first was a self-evaluation by agencies. Each agency was asked to summarize their progress against their individual agency IT plan. The second method involved ITSD making its own evaluation of statewide progress towards accomplishing the goals, strategies, and initiatives listed in the 2004-2005 Plan. The third method was a comparison of Montana to other states through national surveys. Although a comparison to other states is not required as part of the Montana Information Technology Act, it does provide some measure of progress and status from an independent perspective.

State of Montana Strategic Plan for Information Technology 2004-2005: Status and Activity Levels

This section provides a comprehensive review and summary of the progress made during fiscal years 2004-2005. The State's first Strategic Plan for Information Technology, published in May, 2002, contained 5 themes, 9 goals, 36 strategies for attaining the goals, and 8 strategic initiatives. Strategic initiatives are IT projects embraced by the State and implemented to enable the State to achieve its IT vision. Strategic initiatives cross agency and jurisdictional lines and often support the implementation of more than one statewide goal. Initiatives may focus on specific technologies or address a specific business need. The strategic initiatives identified in the 2004-2005 Plan provide a roadmap for defining the future technology course for the state of Montana. A progress summary identified by goal, strategy, and initiative is illustrated in Figure 15.

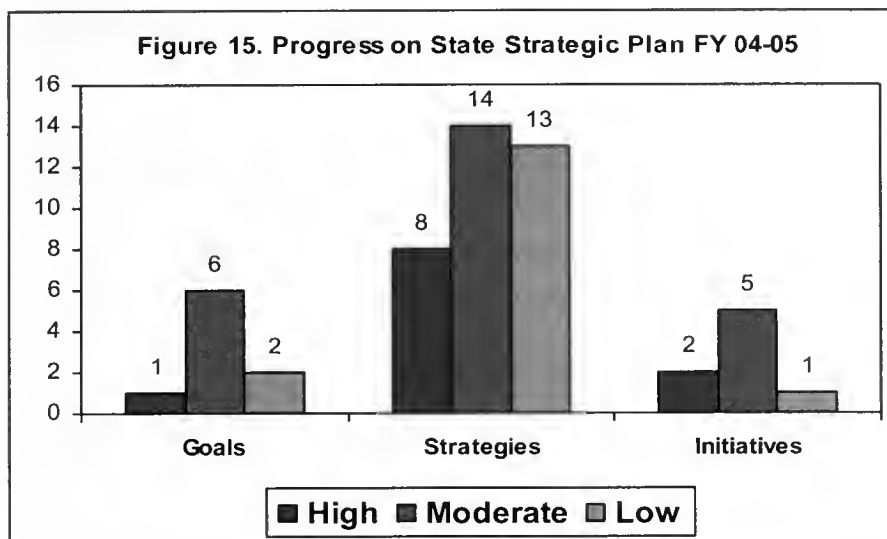


Table 5 below is a “Report Card” of where we are now based on the level of activity and progress made for each of the goals, strategies, and strategic initiatives defined in the 2004-2005 Plan. Table 6 illustrates the level of activity made for each of the strategic initiatives. This overall report card represents a composite of two separate evaluations: the first evaluation was conducted in September 2003; the second evaluation was conducted in November 2004. Each goal, strategy, and strategic initiative is scored on a range of high, moderate, or low, and examples of activities in their respective areas are listed.

Table 5. Report Card of status and activity for enterprise goals, strategies and initiatives

Goals, Strategies and Initiatives	Activity Level
Goal 1. The State will maximize the use of government IT resources through strategic relationships with business and other government entities to enhance the quality of life for Montanans.	M
<ul style="list-style-type: none"> Identify Opportunities for Cooperation The State will examine points of common interest with local, tribal, other states, federal government, and private entities in an effort to improve communication and cooperation that will result in improved service delivery for its customers. Examples of activities and accomplishments during fiscal years 2004 - 2005 <ul style="list-style-type: none"> The Montana Government Information Technology Conference was developed to enable and foster sharing of ideas, services, and experiences. Montana Information Technology Association was established with members from both state government and the private sector. DPHHS web-based immunizations register assists tribes and county health departments. 	H
<ul style="list-style-type: none"> “One-Stop” Initiatives The State will promote business processes in the enterprise that support “one-stop” initiatives and develop a process to facilitate and communicate IT research and evaluation. Examples of activities and accomplishments during fiscal years 2004 - 2005 <ul style="list-style-type: none"> E-Gov: One-Stop Professional Licensing DEQ: Licensing & Permitting FWP: Automatic Licensing System (ALS) 	M
<ul style="list-style-type: none"> Leverage the Use of IT Resources 	

Table 5. Report Card of status and activity for enterprise goals, strategies and initiatives

Goals, Strategies and Initiatives	Activity Level
<p>The State will use the power of "anchor tenancy" to introduce technologies to areas that could not otherwise participate. The State will leverage investments through strategic relationships to ensure that there is no disparity among its customers.</p> <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> Enterprise Services: <ul style="list-style-type: none"> FileNet Imaging Web Site Hosting ITSD is hosting a master directory for all agency use 	M
<p>Goal 2. The State will use appropriate and disciplined project management methodologies and make strategic and fiscally responsible investments in IT resources.</p>	M
<ul style="list-style-type: none"> Project Management Support The State will develop project management support functions within ITSD to promote an increased level of consistency and expertise across all State agencies. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> Project Management Analyst hired Project Management methodologies developed Project Management tool acquired: Digite' Instructional classes developed Project Management M Oversight & reporting initiated 	M
<ul style="list-style-type: none"> Investment Management The State will implement an IT investment management function that incorporates planning, quality assurance practices, performance measurement, and post-implementation reviews to control project lifecycle costs and ensure project success. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> Presentations of status of State IT projects to Legislative Finance Committee (LFC) and Information Technology Board (ITB) 	L
<ul style="list-style-type: none"> Share Project Experience The State will develop a consulting relationship among government entities of the enterprise for the purpose of sharing project information, lessons learned from past and current projects, and project "best-practices." <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> Presentations of status of State IT projects to LFC and ITB Presentations to the Information Technology Managers Council (ITMC) ITPR (IT Procurement Request) log posted for agencies for sharing among agencies 	L
<ul style="list-style-type: none"> Contract Management The State will create a standardized, state-level, and consistent approach to developing vendor contracts and agreements. The use of standardized language and contract management processes will enable agencies to effectively manage contracts and use them to the State's benefit throughout the contract lifecycle. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> A uniform standard IT contract is available on the Web. A Statement of Work (SOW) template has been developed. A uniform, standard IT RFP is available on the Web. ITSD business analysts review agency IT procurements and projects. 	H

<ul style="list-style-type: none"> • Existing System Support The State will maintain a strong emphasis on support and maintenance of existing systems. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • For many agencies, there is no program to identify, retire, & replace old systems. • There is activity among agencies to update and maintain existing systems. • Lacking in: <ul style="list-style-type: none"> ○ Standardized change management ○ Quality assurance via automated testing tools ○ Portfolio management practices to manage IT asset lifecycles 	L
<p>Goal 3. State government will enhance the performance of agencies' mandates, missions, core competencies, and business processes through the appropriate and effective application of current and standard IT resources.</p>	
<ul style="list-style-type: none"> • Enterprise Approach The State will identify the barriers to cooperation among the entities of the enterprise in the use of information technology and develop plans to remove them. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Lack of complete acceptance among agencies. (Acceptance among agencies is not uniform). • Examples of enterprise solutions, include: <ul style="list-style-type: none"> ○ SummitNet II ○ e-Mail • Decentralization and independent agency philosophy is still strong. • Instances of duplication of systems and duplication of data centers. 	L
<ul style="list-style-type: none"> • Use Technology to Enable Business Processes The State will pursue improvements through additional investments to enhance existing technologies. All new investments in information technology will support the agencies' missions and programs. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Examples of agency activity towards web-enabling their services: <ul style="list-style-type: none"> ○ MSF – e-Business Portal ○ FWP – Automated Licensing System (ALS) ○ E-Gov – Professional licensing ○ SOS – Business entity search 	M
<ul style="list-style-type: none"> • Evaluate Business Processes The State will develop information resources, guidelines, and procedures to promote the practice of assessing and redesigning business processes within state government. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • No enterprise-wide guidelines or procedures have been put in place to promote assessing and redesigning of business processes. • Several agencies have begun to implement the practice including, MSF, DOJ, MDT, DOR, and Corrections. 	M

<ul style="list-style-type: none"> • Videoconferencing The State will promote and use videoconferencing as a way to gain more effective communication among State employees, local governments, and their federal counterparts. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Many opportunities exist for agencies to use this service, but agency activity in this area has been limited. • Agency awareness and acceptance is still low. • Examples of current use: <ul style="list-style-type: none"> ○ Higher Education ○ MDT ○ Judicial ○ OPI 	M
<ul style="list-style-type: none"> • Research and Evaluation The State will establish a logical and formalized process to systematically perform research and evaluation on information technologies and processes, with an emphasis on identifying technologies and processes that have the greatest potential to work best in the State's unique environment. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • No formalized, systematic approach has been developed to evaluate new technologies • No funding for research & evaluation • Approach has been reactive, not proactive 	L
<p>Goal 4. State government standards will promote the sharing of IT resources, including data, information, business function expertise, and technology among agencies to minimize unwarranted duplication.</p>	M
<ul style="list-style-type: none"> • Shared Resources The State will promote the sharing of IT resources, including personnel, hardware, software, and information between the entities of the enterprise. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Not many examples of shared resources/people • Examples of sharing resources: <ul style="list-style-type: none"> ○ Disaster recovery ○ Patch management ○ All agencies are participating in business continuity planning 	L
<ul style="list-style-type: none"> • Information Technology Expertise The State will bring together governmental IT expertise to address the various needs for expertise in data, information, business functions, and technology resources in Montana state government. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Network Managers Group (NMG) • Oracle Users Group • Web Developers Group • GIS knowledge transfer • Security Service Delivery Team • Voice Users Group • MACo IT Committee • Agency telephone coordinators • NOS Group • Information Technology Managers Council (ITMC) 	M
<ul style="list-style-type: none"> • Standards, Tools, and Methodologies The State will establish standards, tools, and methodologies to create an environment of shared data, information, and IT resources. 	M

<p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> IT Procurement process has been developed and most agencies are using the ITPR forms to request IT procurements. Improvements in the process are underway. Processes have been developed and are in place to propose, evaluate, and implement new policies and standards. Standards have been put in place for web-site development. Standards have been put in place for standard look and feel for all e-Government. Templates have been developed for agency use. A modest number of standards have been proposed. 	
<ul style="list-style-type: none"> Information Technology Planning The State will inventory and assess the use of IT resources among agencies to identify where sharing can occur and implement an ongoing plan to establish shared IT resources. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> Enterprise level state strategic plan is prepared biennially. Agency specific plans are prepared to coordinate with the States' biennial report. Cross-functional plans or planning efforts are prepared for key areas such as disaster recovery, business continuity, web development, database, GIS, and network access. 	M
<p>Goal 5. State government will aggressively deploy appropriate electronic government services for the benefit of its customers.</p>	H
<ul style="list-style-type: none"> e-Government Services Services and information will be delivered directly to the public via electronic and traditional means, taking into account special needs. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> There are over 60 major e-Government services available to citizens and businesses and more are being added each month. Most services are being delivered through the State's web site: mt.gov The States' web site (DiscoveringMontana.com) was ranked fifth in the nation among state web sites by Brown University for providing the best access to the disabled. 	H
<ul style="list-style-type: none"> e-Government Awareness The State will initiate a statewide public information campaign to provide awareness of its e-Government capabilities, advertise the services provided, promote the advantages, provide access locations and educate Montana's customers in the use of e-Government services. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> Multiple awareness activities have occurred during the last year. Some examples of these activities are: <ul style="list-style-type: none"> Brochures were developed and printed for most services Ads in variety of publications Appeared on TV/radio shows and spoke at civic clubs Won the E-Gov 2003 Government Solutions Center Trail Blazer Award for the Licensee Lookup service, May 2003 Business feature story in the Helena Independent Record, April 2003 FWP Automated Licensing System (ALS) 	H
<ul style="list-style-type: none"> e-Government Business Process Analysis The State will review and combine business processes to support the customer-centric concept that is promoted by e-Government in all its delivery methods. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> Some examples of combining services directly reflecting combining business processes to promote the customer-centric concept: <ul style="list-style-type: none"> e-Calendar service Professional and Occupational Licensing service Payment portal has been established for taking payments Online shopping cart that will be available to all agencies that sell goods Joint cooperation project between FWP & DOJ on residency verification through the driver's license database for hunting and fishing licenses 	M

<ul style="list-style-type: none"> • Flexible and Intuitive Delivery of Services The State will guide the development of a common web site "look and feel" for the enterprise by developing standards for web site structure, aesthetics, and navigation. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • To encourage a common web site "look and feel" we have developed a state of Montana web site template, a common banner and approved footers. • Several agencies are using these tools. • An official standard has been set for e-Government services (transactional based and/or interactive services) requiring a common interface. 	H
<ul style="list-style-type: none"> • Customer Input The State will solicit customer input into e-Government initiatives. This input will include an assessment of current service delivery methods and issues such as feasibility, usability, practicality, necessity, etc. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Every e-Government service has a feedback form and a "contact us" capability for input and feedback. All feedback is maintained and used for directing service enhancements and changes. • Prior to the development of a service, the user community is often asked for input. The contact methods have varied from written surveys, to group meetings and individual telephone calls. • The e-Government services contractor conducted a customer satisfaction survey to see how well agency and customer needs were being met. 	M

<p>Goal 6. The State will require that all IT systems maintain confidentiality and integrity while providing enterprise IT resources consistent with customer needs.</p>	M
<ul style="list-style-type: none"> • Security Standards The State will develop, adopt, and enforce security standards in such areas as enterprise-wide authentication and agency security roles and responsibilities. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Filters and tools are in place, such as: <ul style="list-style-type: none"> ◦ e-Trust tools • Security offices being implemented within each agency • We are evaluating security management software. 	M
<ul style="list-style-type: none"> • Information Security Advisory Group The State will create a voluntary multi-agency information security advisory group to stay abreast of security threat issues, test and recommend IT security measures, and assess the processes and systems used by the State. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • A security delivery team has been created and is active • Regular e-Mails go out to agencies describing threats • Color-coded alerts • Timeframes for installing patches based on color code • Agency participation levels are high • A Security Incident Response Team is a functioning group 	H
<ul style="list-style-type: none"> • Agency Security Teams Each agency will designate responsible parties to work with IT security managers to enhance security within the agencies and coordinate IT security with the Department of Administration and the information Security Advisory group. <p>Examples of activities and accomplishments during fiscal years 2004-2005</p> <ul style="list-style-type: none"> • Each agency has formalized a contact/coordination point to provide agency liaison to the enterprise Security Incident Response Team, but most agencies have not yet formalized their internal security team membership. 	M

<p>Goal 7. The State will require reliable service delivery from its IT systems and maintain up-to-date plans and procedures for enterprise wide disaster recovery and business continuity. Business continuity involves IT systems, human resources, knowledge, physical resources, and communications.</p>	L
<ul style="list-style-type: none"> • Disaster Recovery and Business Continuity Planning The State will establish policies, plans, and guidelines for enterprise disaster recovery, utilizing best practices for business continuity. The plan will prioritize government services for disaster recovery purposes. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • No established guidelines are in place • ITSD has hired a Disaster Recovery Coordinator • ITSD has provided agencies with training and template for disaster recovery plans 	M
<ul style="list-style-type: none"> • Agency Plans Each agency of state government will develop a disaster recovery and business continuity plan and reference these plans in its agency IT plan. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Business continuity was included as a goal in each agency IT plan, but few have put it into place. 	L
<ul style="list-style-type: none"> • High Availability The State will create a plan and IT infrastructure to support agency availability requirements for the various services and information provided by those agencies. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • This has been identified, but not funded • Hot site arrangements for only 3 agencies • A new backup generator is being built for the Mitchell Building • Some examples of agency systems with high availability: <ul style="list-style-type: none"> ○ DPHHS – Food stamps program ○ FWP – Automatic Licensing System (ALS) 	L
<ul style="list-style-type: none"> • Business Continuity Teams The State will create an enterprise wide IT disaster recovery and business continuity team to coordinate planning, testing, and response to internal and external threats. The team will coordinate its work with the Governor's Homeland Security Task Force. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Drills are being conducted with increased agency participation. • An ITSD Enterprise recovery team has been created. • Some agencies have created business recovery teams. 	M
<p>Goal 8. State government will use secure, coordinated, standardized, and shared IT systems to deliver integrated services to its customers.</p>	M
<ul style="list-style-type: none"> • Existing Infrastructure The State will enhance and maintain the stability and coverage of its existing IT infrastructure. The State will stay current by adopting best practices, including planned obsolescence of technologies, and adopting new technologies in a logical and fiscally responsible manner. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Agency strategic IT plans required identification of obsolete and declining systems • High level of activity among agencies to support existing systems • A detailed replacement planning process requires additional work • Upgrading videoconferencing equipment to current standards 	M

<ul style="list-style-type: none"> • Research and Evaluation ITSD will develop a formalized process to systematically research and evaluate technology that has potential application within the enterprise. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • No formalized process has been established • No research & evaluation teams have been created • Generally reactive rather than proactive approach is taken • ITMC has evaluated several technologies: <ul style="list-style-type: none"> ○ LINUX ○ ZEN ○ SQL Server ○ PDAs 	L
<ul style="list-style-type: none"> • Unique, Enterprise-wide Access The State will provide unique, enterprise-wide access across systems, connecting customers to the enterprise and to enterprise directory services. An example would be to provide a customer with a single, reusable sign-on. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Active Directory (AD) – A technical solution exists • ITSD has worked through most all agency AD issues • Only one agency has not yet deployed AD • There are security and control concerns among agencies • Single sign-on is making slow progress • Failed in request for EPP funding for a META directory 	L
<ul style="list-style-type: none"> • Telecommunications In order to improve customers' ability to communicate, State government will continue to promote, pursue, and leverage its telecommunications resources in the areas of voice, data, and video communications. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • SummitNet II – RFP/contract with Qwest to replace the statewide transport services for voice, data and video. This allows the State to purchase services from other providers outside Qwest serving areas. • New long distance contract lowers rates and simplifies billing. • Expanded IVR services - expanded the IVR system to include applications for DPHHS (Electronic Benefits Transfer - EBT) and Student Assistance Foundation (SAF). • Phone switch upgrades • Wireless services are being implemented within the Capitol. 	H

<p>Goal 9. The State will develop a comprehensive mechanism for obtaining IT expertise both internal to state government and through external resources to support Montana's IT Vision in an environment of constant technological change.</p>	L
<ul style="list-style-type: none"> • Training and Education The State will ensure that appropriate training is available throughout the enterprise for policy and program level professionals to more effectively use IT. As well, the State will ensure appropriate training is available to IT professionals responsible for managing its IT assets. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • Agency budgets for training have been cut • No inventory has been done concerning the expertise level of State IT staff • No developed curriculum • IT Training Coordinator position vacant • Established contract with Element K • MDT has created programs for career development and skills assessment 	L

<ul style="list-style-type: none"> • Centers of IT Excellence The will use centers of IT excellence in specific technical disciplines that can provide expertise to the enterprise. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • No activity 	L
<ul style="list-style-type: none"> • Career Development The State will enhance its IT career ladder and develop strategies to ensure professional growth of IT staff and minimize IT employee turnover. <p>Examples of activities and accomplishments during fiscal years 2004 - 2005</p> <ul style="list-style-type: none"> • No standard skill sets established • Lack financial resources 	L

Table 6. Report Card for Strategic Initiatives	
<p>Implement Best Practices A Best Practice is an implemented practice that has been shown to perform optimally over time</p> <p><i>IT Investment Management</i></p> <ul style="list-style-type: none"> • Work is going forward in the area of enterprise architecture. • ITSD and the agencies have drafted revised IT procurement procedures to reduce turnaround time and encourage IT best practices. <p><i>IT Project Management</i></p> <ul style="list-style-type: none"> • ITSD has hired a Project Management Analyst • A Project Management Office has been established within ITSD • Project management support services have not yet been rolled out to agencies • "Best practices" in this area are being developed • Some "best practices" have been tested in DOR with the implementation of IRIS • Project oversight and reporting procedures have been established • Project status presentations are periodically given to the Legislative Finance Committee (LFC) and to the Information Technology Board (ITB) • Project management methodologies have been developed • Project Management tools have been acquired – [Digite and Montana Projects Online (MPO)]. • PM training classes have been developed and deployed. <p><i>IT Infrastructure Sharing</i></p> <ul style="list-style-type: none"> • Some work has been done to identify and eliminate unwarranted duplication of applications • ITSD is hosting the application databases of several agencies • Agencies still desire to run their own applications and servers. Server consolidation and inter-agency hosting is not common. <p><i>IT Contractor Management</i></p> <ul style="list-style-type: none"> • A uniform standard IT RFP and contract have been developed and rolled out to agencies • A Statement of Work (SOW) template has been developed and is being rolled out to agencies • ITSD business analysts review and approve agency IT procurements and contracts 	M
<p>SummitNet SummitNet is the State's high-speed digital infrastructure to completely integrate voice, video, and data transmission services around the state.</p> <ul style="list-style-type: none"> • Refer to "Telecommunications Network," page 18 for status and a detailed report on progress. 	H

<p>Interactive Video Videoconferencing will be used to broaden accessibility, provide alternative means of conducting business, reduce costs, and reduce the need to travel.</p> <p>Refer to "Interactive Video," page 20 for additional information and progress details.</p> <p>Building upon the Federal Engineering Study, ITSD has accomplished the following:</p> <ul style="list-style-type: none"> • Reaffirmed that METNET Interactive Video will be the primary internal service provider for all of the State's videoconferencing needs. • Contracted with Wire One, Inc. of Denver, Colorado, to be our exclusive vendor for interactive videoconference equipment, maintenance, and selected services. • Enabled the H.323 videoconferencing standard on the State's data networks; we have installed an H.323/H.320 bridge, and all new video equipment installed will be H.323 capable. The Department of Transportation has installed three H.323 systems and ordered nine more in 2003. Over time, all of the existing METNET videoconference equipment will be replaced with H.323 compliant systems. • Prepared a draft agreement for a subscription rate offering in addition to the "per conference" rate now in effect. This draft is being reviewed for desired changes and approval by the Department of Transportation and elements of the university system. • The METNET web site (www.discoveringmontana.com/metnet-video) is continually being updated with new information as part of our customer information plan. More communication and marketing with state agencies needs to be done, however, to increase awareness of this product and its usefulness. • ITSD is also working to explore new relationships with other videoconference providers in Montana, as well as enhancing our existing alliances, which have been so successful providing additional videoconference venues to our state users. New users to this methodology, such as the Law Enforcement Academy, will be able to make excellent and cost effective use of this service, using the new equipment offered by our new Wire One contract. • The technology works, but has not been embraced by agency business owners. • Competing video networks exist resulting in confusion by user agencies. 	<p>M</p>
<p>Montana Educational Network Cooperative (Dropped) A cooperative effort of public schools, institutions of higher learning, libraries, and state agencies to concentrate on the educational telecommunications infrastructure and other technology available to students and educators throughout the state in order to provide the greatest access to and value from Montana's educational community.</p> <ul style="list-style-type: none"> • No activity • Higher Education went through a transition (new Commissioner) • The Information Technology Board dropped this initiative upon review • No interest shown in pursuing at this time 	
<p>Public Safety Communications (M) The State will enter into several strategic relationships in order to provide ongoing planning and coordination required for Montana to provide more modern safety communications systems that are affordable and that will communicate across the full complement of public service providers.</p> <ul style="list-style-type: none"> • Consortiums for Public Radio Projects has been funded • \$5.7 million acquired for the Northern Tier Public Safety Radio project • The public safety radio Concept Demonstration Project at Lewis & Clark County is functional • E-911 project has been awarded • \$300,000 grant from DOT NHSTA for manpower for interoperability • New SIEC council use of standards for procurement – significant public and private cooperation • Surplus property agreement to enable all local government to get military surplus items. 	<p>M</p>

<p>E-Government (H) Montana state government will continue to expand its e-Government service offerings to customers. These services will put customers in charge of their relationship with government by providing electronic access to government information and services. Through e-Government, citizens and businesses can interact with their state government on their own schedule and from their own location.</p> <p>Refer to "e-Government," page 8 for more details.</p>	<p>H</p>
<p>Montana Geographic Information Systems</p> <ul style="list-style-type: none"> Geographic Information systems are computer programs and related IT resources that gather, process, store, and display information about the natural resources of a region. GIS data is often integrated with other information to help in the decision-making process. Goals for this initiative are: <ul style="list-style-type: none"> Ensure that geospatial data is created once and used many times throughout federal, state, and local agencies Refer to "Geographic Information Systems," page 9 for additional details. Promote the use of geospatial information in the development of public policy. Create and maintain geospatial data that is critical for Montana's needs. 	<p>M</p>
<p>Criminal Justice Information Systems Project This is a multi-agency initiative launched to ensure that Montana keeps pace with the critical need to gather and provide timely and accurate criminal justice information.</p> <ul style="list-style-type: none"> Committee Activity: The Best Practices subcommittee charted the flow of criminal justice information data from initial arrest through prosecution, courts, disposition and custody. The Standards subcommittee focused on the data elements in the exchange of criminal justice information for the DOJ Criminal History Records System, DOC's ProFiles/Adult Corrections Information System (ACIS) and the Court Administrator's office Judicial Case Management System (JCMS). Conference Activity: The 2003 and 2004 Integration Conferences gave participants an understanding of criminal justice information integration and its impact on law enforcement, district courts, courts of limited jurisdiction and local government. Local Pilots: The MCJISP Local Pilot Project was established in 2000 in cooperation with local criminal justice agencies in Lewis & Clark and Glacier counties. 	<p>M</p>

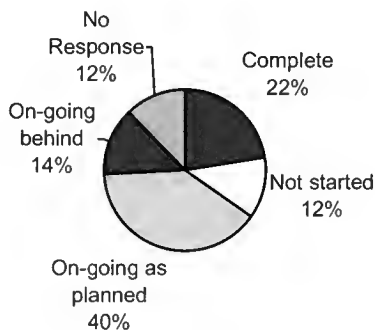
Agency Progress

In addition to the State IT progress, agencies also assessed their progress against their agency strategic IT plans. Agencies provided a self-assessment of their progress in reaching the goals, objectives and initiatives contained within their individual IT plans for FY04 – FY05. Figures 16 and 17 are a summary of their responses to the web survey. “Abandoned” typically indicates a change in strategic or business direction, not a failed project. Figure 16 provides the breakdown of the status for the 75 initiatives defined within the agencies’ IT Plans. Figure 17 provides the breakdown of the status for the 675 objectives defined within the agencies’ IT Plans.

Figure 16. Agency Progress on IT Initiatives



Figure 17. Agency Progress on IT Objectives



Major IT Projects

One of the focal points of Montana's first Strategic Plan for IT was using best practices in project management. In 2003, ITSD obtained legislative budget approval to start the Project Management Office (PMO). The primary functions of the PMO were to provide project management support services to agencies and oversight for agency IT projects that represent significant cost and risk to the State. In August 2003, ITSD purchased and installed a project management tool, Digite, and made it available for agency use. Work also began on developing project management processes and methodologies for Montana. The methodologies are based on the Project Management Institute's Body of Knowledge. In September 2004 ITSD hired a full-time project management analyst within the PMO.

In September 2003 the CIO started the first quarterly project reporting to the Legislative Finance Committee (LFC). Only projects of large size and complexity were reported. The minimum level reported for external IT expenditures was \$750,000. The first report identified 8 major IT projects. Since that time, new projects have been added to the list, and several projects have completed. Progress on the LFC reported projects are summarized below. Additional details on the major IT project are provided in Appendix D.

Administration: E-911

The E-911 project will implement statewide E-911 service, including Phase II wireless capability. Enhanced 911 provides the phone number and location information to the Public Safety Answering Point (PSAP). Phase II wireless provides the phone number, location and GIS coordinates to the PSAP. The project also includes an emergency notification service and a redundant network. ITSD's Public Safety Services Bureau is soliciting participation agreements from the PSAPs.

Administration: Public Safety Radio Interoperability

This project will build a cost shared, reliable and effective P25/TIA 102A standard digital communication system for federal, state, and local organizations. The objective is to develop an interoperable, VHF multimode radio system based on national standards that will support inter and intra-organizational communications during emergencies. The project will upgrade or replace existing land mobile radio systems. Currently, there are two projects underway: Lewis & Clark County is in the final stages of installation and testing their project, and the Northern Tier Interoperability Project (NITP), which includes all the counties along the northern Montana border, is in the beginning stages of their project. There are plans for other consortiums of counties throughout Montana to also provide radio interoperability within their counties.

Corrections: O-Track

For several years, the Department of Corrections had worked internally on improving their legacy inmate information management system, ACIS. After a detailed analysis, Corrections decided to halt ACIS work and search for an existing comprehensive Offender Management System. Three major systems

were examined: Motorola, Sys-Con, and the Utah Consortium's O-Track. They concluded that O-Track was the best fit, and it allowed Montana to benefit from a \$10 million development effort for less than a \$1 million cost. The O-Track system is functional in Utah and a number of other states. Corrections has conducted a detailed fit-gap analysis and is working on funding.

Justice: Team 261

Team 261 is focused on applying Business Process Reengineering (BPR) and supporting technology to improve efficiency and services within the Department of Justice, Motor Vehicle Division. The project is made up of three components: Titling and Registration, Driver Control, and Driver Licensing. It has a budget approaching \$20 million and is about 25% complete. This project is being managed internally by the DOJ who is contracting with a variety of vendors and using regular and temporary employees of DOJ as resources.

Judiciary: Court Automation

This project will update the Judicial Case Management Systems through an implementation of FullCourt and the development/rollout of a graphical user interface for the Judicial Case Management System (JCMS). The project is approximately 50% complete. It is made up of 3 components:

- Deployment of FullCourt (a commercially available program) across the state courts;
- Development of a graphical user interface (GUI) for JCMS; and
- Deployment of JCMS GUI interface across the state courts.

Labor and Industry: MICA

The UI4U (MICA) project is intended to reduce workload on the phone claim center and delays involved in filing for Unemployment Insurance by enabling unemployment claimants to file via the Internet. This is a joint project involving the Department of Labor and Industry, Montana Interactive Inc. and several private sector consulting firms. The project should be operational early in 2005.

The budget was initially more than \$1 million. The current estimate is approximately \$650,000 to \$800,000 depending upon whether or not a function is added to allow employers to file on behalf of employees in certain major layoff situations.

Labor and Industry: Phoenix

Phoenix is the transfer of the Unemployment Tax Program from the Department of Revenue POINTS system back to Department of Labor and Industry (DOLI). The pre-POINTS UI Tax system, Montana Automated Collection (MAC), is being revived and modified to meet statutory, rule and technical changes which have occurred since 1999. The budget is approximately \$4 million and it is about 75% complete.

Montana State Fund: ClaimCenter Project

ClaimCenter is a claims processing package application system being installed as a replacement for the existing Claims Management System (CMS). The project has completed the initiation and requirements phases. The project is budgeted at \$2.5 million and is currently in the design phase. The project is on schedule and on budget. Once the detail design is completed, the construction phase will begin

and is expected to last seven months. An iterative development method is being used which will yield project results throughout this period.

Montana State Fund: Websphere Portal

The Websphere portal provides the framework for web enabling insurance functions for employees and customers. The project finished a week ahead of schedule on March 23 for a total of \$832,000. This was only \$39,000 (4 %) over budget.

Revenue: Income & Corporate Tax (ICT)

ICT is the next phase of the replacement of the POINTS system. ICT encompasses the rollout of the Corporate License Tax and Individual Income Tax modules of the GenTax Software solution. Project Management Office (PMO) oversight and Independent Validation & Verification (IV&V) oversight have been decreased due to the success of the Integrated Revenue Information System (IRIS) project and comfort level with the vendor (FAST Enterprise). The CIO office is providing project management oversight. Revenue has hired an independent project manager and assigned quality assurance support to the \$8.19 million project. ICT officially started in September 2004. ICT is well underway with a planned implementation date of January 31, 2005. Individual Income Tax is scheduled to be launched on September 26, 2005.

Revenue: Integrated Revenue Information System (IRIS)

IRIS was the first phase of the rollout of the integrated tax system replacing POINTS. The system included base/common processing and the following tax types: Rental Vehicle, Lodging Facilities, Cigarettes, Withholding, and Combined Oil & Gas System (COGS). The system was successfully rolled out on time and on budget. The IRIS project was originally budgeted at \$17 million, but came in at \$10.5 million, almost \$7 million under budget.

Secretary of State: State Voter Registration System (SVRS)

SVRS is a requirement of the federal Help America Vote Act (HAVA) 2002. By January 1, 2006, every state is required to have a single centralized, interactive, list of every legally registered voter. This project is just underway with only the requirements definition phase complete. Project design, programming and installation will occur in 2005. This project has a budget of approximately \$1.5 million.

Commerce: Customer Relationship Management (CRM) software

The CRM software will replace the current call center software in the Montana Promotions Division's Tourism Call Center. The software also includes inventory management and marketing modules. The contracts with Tier1 have just been signed. The implementation will take place over the first six months of 2005 and the cost is estimated at \$950,000.

National Comparisons

National surveys provide objective guidelines for measuring IT performance and offer independent verification of Montana's progress in comparison to other states. The following information was derived from recent national surveys and studies from the 2004 Digital State Survey, the Brown University Report, and the Gartner Group.

Digital States Survey

The Center for Digital Government recently announced the results of its 2004 Digital State Survey. This survey, which is conducted in conjunction with *Government Technology* magazine and The Progress & Freedom Foundation, is a nationally recognized and respected study on best practices, policies, and progress made by state governments in their use of digital technologies to better serve their citizens and streamline operations.

Montana is ranked 14th among all states in the 2004 survey. In the 2002 survey, Montana was not ranked among the top-25 digital states. This represents significant progress over the past two years. Among neighboring states were the following rankings in the 2004 survey: Washington 2nd, South Dakota 6th, Utah 8th, Colorado 10th, Minnesota 17th, Wyoming 18, and North Dakota 23rd.

For the 2004 survey, the Center for Digital Government developed a list of 25 common applications across nine categories of services. The categories included Customer Care, Recreation and Travel, Public Safety, Health and Consumer Services, Social Services, Licensing, Professional Licensing, Employment and Labor, and Tax and Revenue. This list was intended to be a representative – but not exhaustive – listing of the types of online transactions provided by state government and those that citizens and business can reasonably expect.

Brown University Report

According to the fifth annual study of state and federal web sites by researchers at Brown University, Montana was ranked 33rd among all states in 2004, up from a ranking of 43rd in the 2003 study. Neighboring states were ranked as follows in the 2004 survey: Utah 3rd, Oregon 19th, Washington 23rd, North Dakota 30th, South Dakota 28th, Minnesota 34th, Nevada 35th, Idaho 36th, and Wyoming 48th.

Brown's research covered 1206 state government web sites. Web sites were evaluated for the presence of a number of different features, such as office phone numbers, office addresses, online publications, online databases, external links to other sites, audio clips, video clips, foreign language or language translation, advertisements, premium fees, restricted areas, user payments or fees, various measures of disability access, several measures of privacy policy, multiple indicators of security policy, presence of online services, the number of online services, links to a government services portal, digital signatures, credit card payments, e-Mail addresses, search capability, comment forms, broadcast of events, automatic e-Mail updates, and web site personalization features.

States were evaluated on the number and type of online services offered. Features were defined as services only if the *entire* transaction could occur online. Searchable databases counted only if they involved accessing information that resulted in a specific government service. Services requiring "non-routine" user fees or payments were not included as general public-access services.

IT Structure

In January 2003, Gartner conducted a study among the 50 states as to their approaches to managing information technology. The study indicated that the IT organizational structure is a major variable determining IT success. According to the study, the lack of an enterprise view reduces the likelihood of economies-of-scale in the procurement process, requires support for multiple data centers and networks, diminishes the likelihood of customer-centric applications, and promotes agency-centric applications.

In an article entitled *Predicts 2005: Government Ramps Up IT*, published in November, 2004, Gartner predicts that by 2006, 35 percent of all government jurisdictions with decentralized or federated IT governance styles will vest greater authority and accountability in the CIO and central IT organization. Michigan, North Dakota, South Dakota, and Virginia are a few states that have moved to a more centralized IT organizational structure. Gartner finds a trend towards consolidation of certain core IT services such as e-mail administration, file and print server administration, directory services, database administration, storage, web site hosting, and application server and hosting services.

The Center for Digital Government found the top 10 ranked states had IT structures that were between 'balanced' and 'centralized'; the profile of the 40 remaining states was skewed to decentralization.

When the Montana Information Technology Act created the CIO's office, Montana took the first step toward a more centralized IT organizational structure. Thus far, Montana has not evaluated or used server consolidation, resource sharing, or centralization of IT operations.

MITA Implementation

Duties and Responsibilities

The Montana Information Technology Act of 2001 (MITA) specifies that the Department of Administration is responsible for carrying out the planning and program responsibilities for information technology for state government. In the three years since the enactment of this legislation, the Information Technology Services Division (ITSD) of the Department of Administration has made progress towards implementing the requirements specified by the Act.

- **IT Strategic Planning**

Since the passage of MITA, ITSD has produced and published two Strategic Plans for Information Technology: one for FY 04-05 and one for FY 06-07. These plans were produced with the input and collaboration of various governing

bodies, in particular, the Information Technology Board (ITB) and the Information Technology Managers Council (ITMC).

Each biennium, ITSD is responsible for preparing a report on the State's IT infrastructure and progress on the State's strategic plan for IT. The first biennial report was published in May 2002. This document is the second report.

- **Establish and enforce statewide IT policies and standards**

ITSD's Policy and Planning Services Bureau reviews and approves agency IT plans and IT procurements to assure that they comply with policies and standards and conform to the strategic direction of the State.

- **Information Technology Board (ITB)**

MITA created an Information Technology Board to advise on IT activities across the State. The Board is composed of representatives from the Legislature, Judicial branch, Executive branch, agencies, local government, education, and the private sector. The Board held its first meeting in September 2001 and meets about 6 times a year.

- **Review and approve agency IT plans**

During the spring of 2002 and 2004, ITSD/PPSB reviewed and approved agency IT plans to assure that they complied with the statewide IT plan. Copies of these plans are posted on the ITSD web site.

- **IT procurement reviews**

Created immediately after the passage of MITA, the Policy and Planning Services Bureau (PPSB) has the responsibility for reviewing all IT procurements by executive branch agencies. Procurement reviews have grown from 303 in fiscal year 2002 to over 850 in fiscal year 2004. This growth in procurement reviews is due to the fact that many more agencies are complying with the provisions of the MITA, not growth in IT spending. ITSD reviews each agency's IT procurements for compliance with the State IT plan, the agency's IT plan, and state standards. ITSD has established a procedure for granting exceptions to any policy, standard, or other requirement if it is in the best interest of the state of Montana.

- **Central computer center**

ITSD operates and maintains a central computer center for the use of state government, political subdivisions, and other participating entities under terms and conditions established by the department. Details on the data center can be found under "Data Center," page 16.

- **State-wide telecommunication network**

ITSD operates and maintains SummitNet II, a statewide telecommunications network for the use of state government. Details on the network can be found in "Telecommunications Network," page 18.

- **Coordinate public safety communications**

ITSD's Public Safety Services Bureau manages statewide planning of public safety communications and provides staff support for the Montana Public Safety Communications Council.

- **Management of the E-9-1-1 program**

ITSD's Public Safety Services Bureau manages the State's E-9-1-1 program and provides staff support to the E-9-1-1 Advisory Council.

MITA Policies

MITA created the office of the CIO, the Information Technology Board (ITB), and entrusted DOA with a new set of oversight responsibilities for IT procurements and strategic planning. These actions were aimed at accomplishing specific policies from MITA quoted below:

1. *"Development of IT resources in the State must be conducted in an organized, deliberative, and cost effective manner"*
2. *"Establish statewide IT policies, standards, procedures, and guidelines"*
3. *"Common data is entered once and shared among agencies"*
4. *"Minimize unwarranted duplication"*

While Montana has made excellent progress in structuring the office of the CIO, organizing the ITB, and conducting strategic planning, progress towards realizing of these four major policy mandates has been slow at best. A status of each follows:

1. *"Development of IT resources in the State must be conducted in an organized, deliberative, and cost effective manner."*

The identification, prioritization, and business justification of IT projects is frequently not an organized process. While a few agencies have created IT governance boards, most agencies do not have a formalized internal IT governance structure and process. These internal boards are a major step forward in organizing management insight into IT projects. In many instances, individual agency management does not require a comprehensive business and technical analysis of proposed IT projects prior to submittal to ITSD for review. A business case justification that examines alternatives, risks, and life cycle costs, and implementation planning is missing from almost all IT projects and acquisitions. Frequently, any analysis that is conducted is primarily from the agency perspective. The overall needs of the State are not adequately considered.

2. *"Establish statewide IT policies, standards, procedures, and guidelines."*

Montana uses a wide variety of hardware, software, and services to run its IT operations. The inexpensive hardware of the 1990's fueled the proliferation of hundreds of smaller servers. Decentralization of the IT infrastructure blossomed and with it came a wide variety in software and hardware. Standards and policies are in place but have not fully contained or reversed this trend. When a

new hardware or software standard is adopted, agencies often do not see an advantage to migrate their non-standard products to the new standard. The costs (staff training, new licenses, etc.) of migrating to the standard are often not balanced by benefits to the agency. While it is true that the State benefits from common-skilled staff and the ability to share systems, these advantages are not part of the agencies' evaluations. What results is a wide variety of IT systems and tools, all requiring their own maintenance and support.

The objective of 100% compliance with common standards is not obtainable, or even desirable. It is impossible for the State to choose standards that are best of breed for every single agency application and system. For this reason, an exception process was designed to allow for these differences. Too often, however, the exception request is based on technical features and preferences that have no impact on the agency's business operation.

Montana's IT infrastructure is still extremely diverse, and we have not made significant progress in reducing the diversity. Even the simple step of developing a common look and feel for the State's web sites required a governor directive.

3. *"Common data is entered once and shared among agencies."*

Over the past two years, there were no major initiatives or agency projects that resulted in major data sharing between agencies.

4. *"Minimize unwarranted duplication."*

The State has achieved some success in providing enterprise services; for example: SummitNet is the State's data communications network service, SABHRS is the enterprise financial applications system, and ITSD provides enterprise e-Mail services. The use of enterprise solutions serves to minimize unwarranted duplication of IT systems.

ITSD has taken a number of actions in response to MITA's policy to "minimize unwarranted duplication." Late in 2002, ITSD established procedures that include evaluating requests for software purchases or the procurement of system and application development resources to determine if solutions currently exist within State government. This review process has encouraged some agencies to utilize existing resources rather than build or buy new systems.

In July 2004, the CIO and the Budget Director submitted a request to agency information technology managers for information related to 47 agency financial and human resources subsystems and applications that showed potential for reducing duplication. The initial results of the review are as follows:

- 10 Systems have been sunsetted
- 6 Systems have sunset target dates established
- 4 Systems have been recommended for sunset
- 11 Systems have been recommended for retention
- 4 Systems are still under review
- 12 Systems are questionable; no information was received

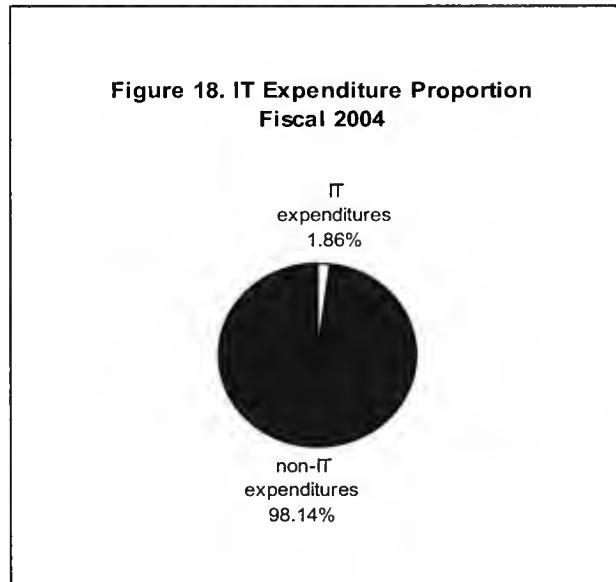
Furthermore, as part of the effort to prepare this report, agencies were asked to submit an inventory of their information technology applications and systems. In 2005, ITSD staff will continue to review this information and identify applications or systems that merit further evaluation for potential replacement with enterprise solutions.

This MITA policy was directed at ensuring that IT systems were as cost efficient as possible. While Montana has excellent examples in the SummitNet II network and the single e-Mail system for the State, other examples are rare. Most agencies support their own file and print servers, web servers, and Oracle database servers. Although centralization of IT operations and server consolidation were not specific MITA policies, they are strategies that can lead to minimizing unwarranted duplication.

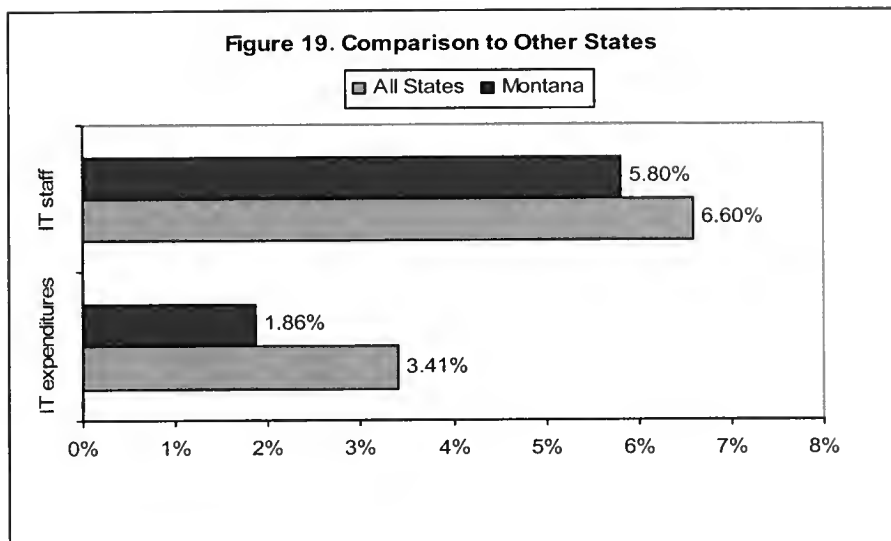
Information Technology Expenditures

IT Expenditures for Fiscal Year 2004

Expenditure information shown in Figure 18 is from the Statewide Accounting, Budgeting and Human Resource System (SABHRS) for fiscal year 2004. The data has been adjusted to eliminate the double counting of funds agencies pay to ITSD. The Montana University System is not included in these amounts. Montana's total IT expenditure for fiscal year 2004 was \$110.12 million. This represents a small fraction, 1.86% of all State expenditures.



Montana's IT expenditure is significantly less than the average of other states. Montana has 12% fewer IT staff (5.8% vs. 6.6%) and spends 45% less (1.86% vs. 3.41%).



The state averages shown in Figure 19 are from Gartner's 2004 IT Spending and Staffing Survey, October 2004. Figure 20 lists the IT expenditures for the top 10 IT agencies. These agencies account for 85% of the total IT expenditures for the State.

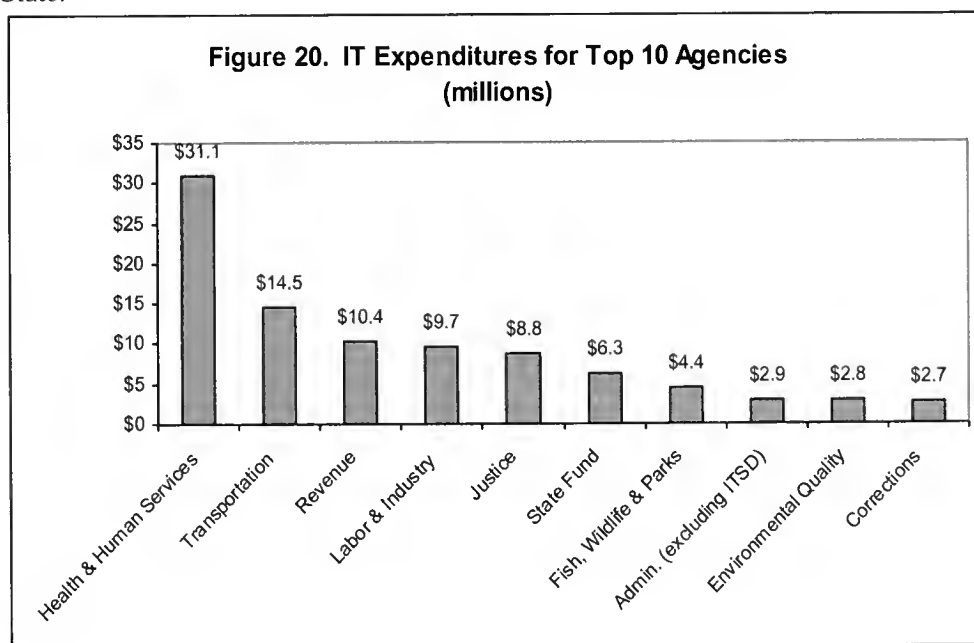


Table 7 is a breakdown of IT expenditures for the Executive, Judicial, and Legislative Branches, by agency. The University System is not included. Agency operating expenditures in column F are administrative operating expenditures such as personal services, operating, equipment, and debt services. Agency pass-through payments (unemployment benefits, health care benefits, etc.) have not been counted. ITSD is listed separately since agency IT expenses in columns D and E include payments to ITSD. Adding ITSD to the total would double count these IT expenditures.

Table 7. Agency IT Expenditures - Fiscal Year 2004

Agency	A State IT Staff	B Contracted Services	A+B = C Total IT Staffing	D IT Expenditures (non-personnel)	C+D=E Total IT Expenditures	F Agency Operating Expenditures	E/F=G IT Percentage of Expend.	H IT staff count	I Agency FTEs	H/I=J IT staffing percentage
Legislative Branch	686,676	190,575	877,251	751,894	1,629,145	10,136,644	16.1%	10	125	8.0%
Consumer Counsel			0	14,960	14,960	1,297,991	1.2%	0	5	0.0%
Judicial Branch	765,405	109,025	874,430	1,274,598	2,149,028	35,548,117	6.0%	15	375	4.0%
Governor's Office	34,749	2,025	36,774	144,841	181,615	4,277,392	4.2%	1	57	1.8%
Secretary of State's Office	199,007	163,095	362,102	580,486	942,588	4,493,616	21.0%	4	51	7.8%
Commissioner of Political Practices		450	450	10,161	10,611	309,314	3.4%	0	4	0.0%
State Auditor's Office	135,994		135,994	155,916	291,910	3,910,759	7.5%	3	72	4.2%
Office of Public Instruction	959,336		959,336	586,638	1,545,974	16,760,795	9.2%	22	151	14.6%
Dept of Justice	1,825,579	2,427,932	4,253,511	4,561,024	8,814,535	60,978,292	14.5%	42	732	5.7%
Public Service Regulation	102,893		102,893	83,760	186,653	3,017,653	6.2%	2	39	5.1%
Board of Public Education			0	6,323	6,323	334,193	1.9%	0	4	0.0%
Commissioner of Higher Education	172,035		172,035	205,703	377,738	11,899,588	3.2%	4	97	4.1%
Ag Experiment Station	272,946	823	273,769	211,279	485,048	14,958,154	3.2%			
Extension Service	93,820	609	94,429	119,314	213,743	10,170,038	2.1%			
Forestry & Conservation Exper. Station	152,032		152,032	14,087	166,119	920,509	18.0%			
Bureau of Mines			0	70,904	70,904	2,282,491	3.1%			
School for the Deaf & Blind	35,605		35,605	54,397	90,002	4,065,259	2.2%	1	82	1.2%
Montana Arts Council	44,783	15	44,798	25,332	70,130	676,327	10.4%	1	7	14.3%
Library Commission	627,578	10,966	638,544	291,638	930,182	3,294,437	28.2%	18	46	39.1%
Montana Historical Society		723	72,372	194,132	266,504	4,733,901	5.6%	0	68	0.0%
Dept of Fish, Wildlife & Parks	1,281,033	1,544,603	2,825,636	1,594,716	4,420,352	61,073,110	7.2%	45	627	7.2%
Dept of Environmental Quality	1,303,325	191,001	1,494,326	1,315,676	2,810,002	50,377,571	5.6%	35	419	8.4%
Dept of Transportation	3,681,406	2,776,707	6,458,113	8,028,232	14,486,345	530,681,433	2.7%	77	2294	3.4%
Dept of Livestock	92,910	2,330	95,240	275,154	370,394	7,852,502	4.7%	3	145	2.1%
Dept of Natural Resources & Conser.	604,748	15,801	620,549	1,484,704	2,105,253	111,206,891	1.9%	10	486	2.1%
Dept of Revenue	1,942,663	4,294,117	6,236,780	4,165,889	10,402,669	75,693,439	13.7%	37	643	5.8%
Dept of Administration (excluding ITSD)	507,322	489,828	997,150	1,941,971	2,939,121	77,488,248	3.8%	12	328	3.7%
Appellate Defender			0	6,891	6,891	191,846	3.6%			
State Fund	2,515,036	1,955,000	4,470,036	1,871,596	6,344,632	38,592,050	16.4%	26	268	9.7%
Public Employees Retirement System	147,632		147,632	315,270	462,902	4,556,536	10.2%	4	34	11.8%
Teachers Retirement System	123,571	105,045	228,616	139,167	367,783	3,882,974	9.5%	2	16	12.5%
Dept of Agriculture	219,917	31,048	250,965	362,970	613,935	7,792,943	7.9%	5	111	4.5%
Dept of Corrections	888,665	19,995	908,660	1,767,366	2,676,026	110,631,481	2.4%	22	1158	1.9%
Dept of Commerce	540,815	125,447	666,262	978,404	1,644,666	62,527,213	2.6%	11	193	5.7%
Dept of Labor & Industry	3,150,221	2,271,710	5,421,931	4,250,928	9,672,859	54,165,455	17.9%	72	747	9.6%
Dept of Military Affairs	136,817		136,817	1,215,229	1,352,046	19,772,585	6.8%	3	186	1.6%
Dept of Public Health & Human Services	3,596,807	17,134,570	20,731,377	10,326,510	31,057,887	208,080,464	14.9%	75	2805	2.7%
Total	\$26,912,973	\$33,866,440	\$60,779,413	\$49,396,060	\$110,177,473	\$1,618,632,211	6.8%	562	12374	4.5%
Dept of Administration (ITSD only)	\$11,162,039	\$1,005,246	\$12,167,285	\$17,623,670	\$29,790,955	\$30,667,345	39.7%	163	195	83.6%
								725	12,569	5.8%

Notes:

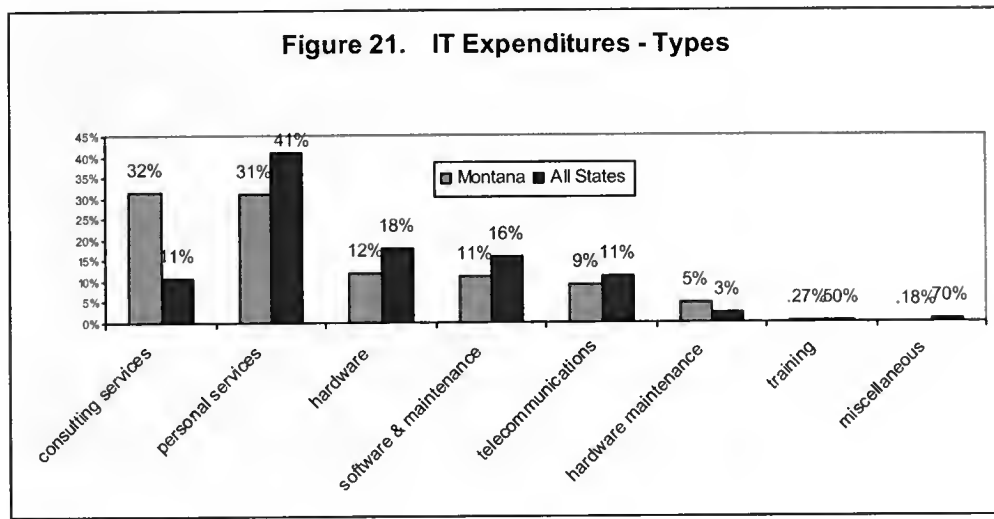
a. DOA/ITSD is separate since some agency IT expenses are charges paid to ITSD. Including ITSD in the total double counts all agency expenditures paid to ITSD.

b. The Legislative Branch supports an additional 40 temporary staff in odd numbered years.

c. The Judicial Branch supports an additional 525 county employees.

d. Not all agencies code IT consulting services with SABHRS code 62136. Some use 62102, consulting and professional services. Therefore column B, contracted services, may be understated. Therefore column B, contracted services, may be understated.

Figure 21 is a breakdown of IT expenditures by categories. The graph also compares Montana's expenditures to the average of other states.



Montana's expenditures on IT vary widely from the average state.

- Montana spends three times as much on contractors and consultants as the average state. In fiscal year 2004 the expenditure was 31% of all IT expenditures.
- In all other categories except hardware maintenance Montana spends less than the average state.
- The difference between Montana and other states on personal services is not entirely due to Montana's lower (5.8%) proportion of IT staff. Even if Montana added 100 IT staff and raised its proportion to the 6.6% average of other states, Montana's expenditures on personal services would still trail the average state 38% to 41%.
- Montana's \$317,000 spend on IT training is roughly equivalent to 1 day of professional training per IT employee. Gartner's research shows the average firm spends 9 times this amount on training.

Information Technology EPP Requests

Major IT projects are often identified through the Executive Planning Process (EPP). Major IT project requests used the following Budget and Program Planning Office definition for the 2007 Biennium:

"\$300,000 in total project costs, including costs to be incurred in subsequent biennia, *or* \$50,000 in total projects costs *and* 25% of the IT base year expenditures of the agency – whichever is less. Total project development costs include new appropriation requests, anticipated use of current operating expenses (IT personal services, hardware, software, and associated services), grants, special fees, and other sources of funds."

NP-101Transportation - Integrated Financials

The Integrated Financials project focuses on defining the business processes necessary to integrate the departments planning efforts with the financial processes for developing and monitoring budgets, planning and monitoring the use of federal obligation authority, managing cash reserves, and will maximize the use of the project scheduling system and SABHRS. Incremental steps will be taken during the 2007 biennium.

FY2006	\$646,883	FY2007	\$672,374
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NP-102Transportation - Remote Computer Connectivity

This request would provide high speed communications connections to a subset of all remote MDT sites that currently are limited to dial-up speeds.

FY2006	\$250,000	FY2007	\$250,000
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NP-718Administration/ITSD - Montana Spatial Data Infrastructure (MSDI) Federal Funding

The initiative will expend requested Federal funding to build out four specific land information databases, transportation/addressing, jurisdictional boundaries, geodetic control, and critical infrastructure. As these databases are expanded, customer service and business applications can be built to support emergency response, wildfire, health, and a variety of related applications that can't be supported with existing data.

FY2006	\$707,000	FY2007	\$707,000
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NP-719Administration/ITSD - Montana Land Information Act

The initiative will expend requested Federal funding to build out four specific land information databases, transportation/addressing, jurisdictional boundaries, geodetic control, and critical infrastructure. As these databases are expanded, customer service and business applications can be built to support emergency response, wildfire, health, and a variety of related applications that can't be supported with existing data.

FY2006	\$1,400,833	FY2007	\$1,401,336
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PL-1Secretary of State of Montana – HAVA Centralized Voter Management System (CVMS)

CVMS is a system designed to comply with the Help America Vote Act (HAVA). SOS will be implementing a single, uniform, official, centralized, interactive, computerized statewide voter registration list defined, maintained, and administered at the State level that contains the name and registration information of every legally registered voter in the State and assigns a unique identifier to each legally registered voter in the State.

FY2005	\$1,888,915	FY2006	\$1,367,835
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PL-2

Secretary of State - Increase appropriation for FY 2007 to cover PC replacement costs

PC replacement.

FY2006	\$0	FY2007	\$143,808
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PL-3

Justice - Enhancement of GCD Database and Business Processes

Development of a new web entry application will allow migration off an Informix database that is non-standard.

FY2006	\$400,000	FY2007	\$0
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PL-100

Health and Human Services - Energy Assistance Increases

This request includes a \$160,000 annual increase for maintenance/ improvements to the centralized database system (CDS) that supports client tracking applications.

FY2006	\$1,194,671	FY2007	\$1,244,671
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PL-103

Transportation - Commercial Vehicle Operations Enhancements

This request would restore funding to a previous level and provide general enhancements to VISTA, a commercial carrier application.

FY2006	\$232,831	FY2007	\$232,831
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PL-104

Fish, Wildlife and Parks - Assumption of Automated Licensing System (ALS)

This proposal will transition Montana Fish, Wildlife & Parks (FWP) from contracted technology services to in-house support for the Automated Licensing System (ALS) that processes over 1.3 million license items annually.

FY2006	-\$1,167,150	FY2007	-\$1,167,150
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PL-202

Department of Revenue - IRIS Operating Costs

DOR is requesting funding for on-going operating costs for IRIS since the new system was not part of the FY2004 base. These annual costs include DOA/ITSD's hosting data on their mid-tier servers \$600,000; GenTax vendor maintenance \$400,000 GenTax vendor support services \$936,000; and additional printing and mailing costs of account receivable statements required to be mailed monthly with the new system \$30,059.

FY2006	\$491,665	FY2007	\$1,131,414
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PL-4516

Judicial - Youth Courts-Community Programs/Videoconferencing

This request includes \$150,000 annually to cover maintenance and line charges on videoconferencing services.

FY2006	\$153,562	FY2007	\$153,562
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PL-306Transportation - RWIS System Maintenance and Expansion

Replace, upgrade and expansion of the remote web camera system.

FY2006	\$230,075	FY2007	\$230,075
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Major IT Spending Proposals

Significant new and continuing IT projects are often not identified through the EPP process since funding is obtained through other means. These IT projects are not part of the EPP process, but their fiscal year 2006-2007 expenditures are expected to exceed \$1,000,000. Most of these projects were identified through the 2004 IT strategic planning process. Recent projects proposed to the new administration in the last two months of 2004 are not included.

Montana State Fund - Replace Power Comp Claims Processing System

Complete development of a new Claims System and deploy as a parallel pilot.

FY2006	\$1,692,635	FY2007	\$220,000
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Montana State Fund - Replace Power Comp Policy Holder System

Complete development for a new Policy Holder System

FY2006	\$2,300,000	FY2007	\$2,200,000
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Public Health and Human Services - Child and Adult Protective Services System (CAPS)

FY2006	\$2,430,104	FY2007	\$2,460,984
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Public Health and Human Services - The Economic Assistance Management System (TEAMS)

The department has several objectives as part of the short and long term TEAMS plan.

- Conduct a capacity study to assess re-engineering of the TEAMS system.
- Develop requirements and conceptual design for implementation of independent Program modules (TANF and Food Stamps) within TEAMS.
- Develop requirements and conceptual design for implementation of an independent reporting system.

FY2006	\$7,513,093	FY2007	\$7,517,771
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Public Health and Human Services - System for Enforcement And Recovery of Child Support (SEARCHS)

SEARCHS has multiple goals for ongoing maintenance and enhancements.

- Enhance web applications that allow clients to access payment history, guidelines and a directory of workers and ability to make child support payments, download forms, and submit forms to the CSED.
- Develop a new web enabled process to replace the aging document generation system
- Develop interfaces with newly developed State systems, which includes, but not limited to, IRIS (Department of Revenue) and MAC (Department of Labor).
- Improve current interfaces, i.e. CSENet, TEAMS, CCR, Montana Access, etc.
- Distribute technology from mainframe to more contemporary programming languages and technology platforms.

FY2006	\$2,891,386	FY2007	\$2,892,488
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Public Health and Human Services - MEDICAID Management Information System (MMIS)

MMIS has multiple goals for ongoing maintenance and enhancements.

- Enhance the Restricted Card Program to better manage the client's care and control costs
- Change the way Managed Care Provider Numbers are assigned to make it more flexible
- Implement a modifier hierarchy scheme to better pay claims

FY2006	\$5,972,513	FY2007	\$5,973,615
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Public Health and Human Services - Central Database System/Low Income Energy Assistance Program (CDS/LIEAP)

DPHHS has the following objectives for the CDS/LIEP project.

- Development of additional Oracle and Discoverer reports to provide outcome information to federal funding agencies.
- Provide on-demand progress reports for the Community Service Block Grant utilizing Results Oriented Management and Accountability (ROMA) measurements and the annual National Association of State and Community Service Programs (NASCS) as required by Government Performance Results Act of 1993 (GPRA) for Congressional reporting.
- Development of additional interfaces at the request of the Human Resource Development Councils (HRDCs) to eliminate duplicate data entry at the HRDCs.
- Automate programs as required by Housing and Urban Development (HUD).

FY2006	\$514,615	FY2007	\$514,615
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Justice - Motor Vehicle Business Process Redesign (Team 261 Project)

Team 261 is a business-process project with the primary objective of improving efficiencies and services for the Motor Vehicle Division and Montana citizens.

The projected costs are for the first few phases of the 13 phase project.

FY2006	\$2,020,019	FY2007	\$1,685,849
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Justice - CJIN 21 Refresh Project

CJIN 21 is an update to the hardware and software used on the Criminal Justice Information Network (CJIN)

FY2006	\$340,526	FY2007	\$507,448
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Secretary of State - Corporations System Replacement

This project will replace the Corporations System that was originally developed in 1982. It stores 150,000 business registrations including over 300,000 paper files and 3 million documents. Under the technology plan, the documents will be filmed, digitized and indexed. Compliance officers and business customers will be able to access the documents for review and update of corporate records.

FY2006	\$810,000	FY2007	\$810,000
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Appendix A. Contractor Expenditures – Fiscal Year 2004

MIS Services Contractors

Access Consulting		Maxim Technologies	
Axiom		Maximus	\$184,586
Bearing Point1	\$2,523,004	National Systems & Research	\$2,869
Ciber		Northrup Grumman	\$1,817,253
Computer Consulting Corp	\$1,869,105	Power Engineers	
Coplan & Company		Pyron	
Corporate Technology Group		SCG	
CrossUSA	\$254,605	Taliant	\$1,527,805
Cutthroat Communications		TATA Consultancy Services	\$141,192
EDS		Tek Systems	
Fast Forward		TetraTech	
Federal Engineering		The Sanborn Map Company	
First Call		Venturi	\$119,867
Gold Systems Inc	\$373,435	VisionNet	
IBM	\$764,564	Western Computer Services	\$873,808
iGate Mastech		Wisetek	\$156,913
Innovative Technology Solutions			<u>\$10,609,005</u>

Small Project Professional Information Technology Service Providers

Abator Information Systems		Kadrmass Lee & Jackson	
All Consulting		Kernal Processing	
AMDEC	\$361,388	Manley Group	
Antech Consulting		Mapping and Planning Specialists	
Automation & Mngmnt Consulting, LLC		Mercadence	
AXIOM	\$12,488	Montana Independent Telecom Systems	
Brian McCullough	\$119,634	Northrup Grumman	\$78,557
Coffeecup Consulting	\$122,883	Object Resources	
Computer Consulting Corp	\$672,217	Pinnacle Solutions	
Computer Geex		Proptions	
Coplan & Company		Revenue Solutions	
Corporate Technology Group		Rinehart Engineering	
Datalogic		SGR, Inc.	\$120,870
DCM Data Systems		Software Innovations	\$1,957
DTM Consulting		Soluziona	\$107,639
Dye Management Group		Spatial Data Research	
Entersource	\$136,155	Sunplus	
First Call		Taliant	
Front Desk Software		Tempest Tech	
GCS Research		Venturi Technology Partners	
GEO Data Services		Vision Net Inc.	
Global Positions		Westcon Consulting	\$96,223
Haag Computer	\$139,860	Wisetek Providers	\$489,845
INET Technologies		Xybernaut	
JDM Inc.	\$112,840		<u>\$2,572,554</u>

Appendix B. e-Government Services – January 2001 to November 2004

This table is an estimate of the value of the Montana Interactive Inc. services since the start of the eGovernment Services Contract. The hours listed are actual hours expended, but the hourly costs are estimates based on MIS rates since MII does not charge on an hourly basis. A \$105/hour rate was used for technical support and \$85/hour for management time.

Service Name	technical		management		production	maintenance	total
	hours	cost	hours	cost	cost	cost	cost
<u>January to November 2004</u>							
Business Entity Annual Reports	1,202	\$126,210	408	\$34,680	\$160,890	\$10,450	\$171,340
Business Tax Express	323	\$33,915	98	\$8,330	\$42,245	\$113,040	\$155,285
UCC Search	563	\$59,115	356	\$30,260	\$89,375	\$12,840	\$102,215
Virtual Terminal	264	\$27,720	124	\$10,540	\$38,260	\$32,990	\$71,250
Educator Licensure	262	\$27,510	136	\$11,560	\$39,070	\$18,940	\$58,010
Virtual Cashier	216	\$22,680	116	\$9,860	\$32,540	\$15,480	\$48,020
Educators Certificates	146	\$15,330	72	\$6,120	\$21,450	\$18,940	\$40,390
Corporate Records	157	\$16,485	102	\$8,670	\$25,155	\$7,600	\$32,755
Historical Society Shopping Cart	156	\$16,380	119	\$10,115	\$26,495	\$4,590	\$31,085
Radio Frequency Permitting	181	\$19,005	106	\$9,010	\$28,015	\$2,520	\$30,535
Record Search	232	\$24,360	10	\$850	\$25,210	\$1,455	\$26,665
Voter Verification	179	\$18,795	78	\$6,630	\$25,425	\$1,075	\$26,500
UCC Bulk Data	166	\$17,430	70	\$5,950	\$23,380	\$2,460	\$25,840
Certified Copies	119	\$12,495	59	\$5,015	\$17,510	\$6,240	\$23,750
PSAP	39	\$4,095	14	\$1,190	\$5,285	\$0	\$5,285
	4205	\$441,525	1868	\$158,780	\$600,305	\$248,620	\$848,925

January 2001 to December 2003

Hunting and Fishing Licenses	1981	\$208,005	707	\$60,095	\$268,100	\$164,700	\$432,800
Professional License Renewal	369	\$38,745	876	\$74,460	\$113,205	\$174,480	\$287,685
Driver Control Record Access	470	\$49,350	160	\$13,600	\$62,950	\$75,640	\$138,590
Registered Principal Search	712	\$74,760	316	\$26,860	\$101,620	\$20,670	\$122,290
Driver Record Search	340	\$35,700	160	\$13,600	\$49,300	\$46,170	\$95,470
Income Tax Express	378	\$39,690	162	\$13,770	\$53,460	\$37,500	\$90,960
Business Entity Search (incl. certific:	430	\$45,150	160	\$13,600	\$58,750	\$22,820	\$81,570
Convicted Offender Network	390	\$40,950	160	\$13,600	\$54,550	\$25,080	\$79,630
University Tuition Payments	290	\$30,450	208	\$17,680	\$48,130	\$29,660	\$77,790
Historical Society Memberships	472	\$49,560	182	\$15,470	\$65,030	\$10,440	\$75,470
Vehicle Search	310	\$32,550	165	\$14,025	\$46,575	\$24,350	\$70,925
Child Support Payment Display	466	\$48,930	188	\$15,980	\$64,910	\$1,260	\$66,170
Shopping Cart Sales	300	\$31,500	100	\$8,500	\$40,000	\$24,400	\$64,400
EPassport	320	\$33,600	220	\$18,700	\$52,300	\$10,080	\$62,380
State eCalendar Service	330	\$34,650	150	\$12,750	\$47,400	\$13,065	\$60,465
Voter File	345	\$36,225	161	\$13,685	\$49,910	\$10,070	\$59,980
Professional Licensee Lookup	257	\$26,985	140	\$11,900	\$38,885	\$7,080	\$45,965
Income Tax Express Short Form	251	\$26,355	142	\$12,070	\$38,425	\$0	\$38,425
Motor Carrier Service	160	\$16,800	80	\$6,800	\$23,600	\$1,410	\$25,010
Searchable Properties Service	160	\$16,800	80	\$6,800	\$23,600	\$210	\$23,810
Civil Rights/ DBE Tracker	140	\$14,700	70	\$5,950	\$20,650	\$1,680	\$22,330
Coloring Contest	80	\$8,400	80	\$6,800	\$15,200	\$0	\$15,200
Search Engine	0	\$0	0	\$0	\$0	\$6,300	\$6,300
Parole Violators	36	\$3,780	14	\$1,190	\$4,970	\$0	\$4,970
Yellowstone Service Security	44	\$4,620	0	\$0	\$4,620	\$0	\$4,620
Residency Verification	12	\$1,260	2	\$170	\$1,430	\$2,200	\$3,630
	9043	\$949,515	4683	\$398,055	\$1,347,570	\$709,265	\$2,056,835

Appendix C. PBX Switch Inventory

Stations are voice hand sets, faxes, and modems.

Trunks are the lines connecting to the public switched network or other State PBXs.

PBX Type	Site	City	Stations	Trunks
81C	Capitol Complex	Helena	5328	1836
61	Armory	Helena	132	59
11C	Fort Harrison	Helena	81	46
61C	State Fund	Helena	459	174
61	DOT	Helena	797	70
11C	BOI (Colonial Bldg.)	Helena	306	47
11C	DOT Prospect	Helena	232	47
11C	Steamboat	Helena	35	23
11C	Federal Bldg.	Helena	451	70
11C	Front Street	Helena	31	23
11C	Liquor Warehouse	Helena	206	47
11C	Northgate Plaza	Helena	159	23
11C	Lottery	Helena	37	23
81C	MSU Bozeman	Bozeman	5941	424
81C	UM Missoula	Missoula	4650	560
11	UOM East	Missoula	106	23
11	UOM West	Missoula	23	23
21	Forestry	Missoula	204	26
11C	Palmer Complex	Missoula	320	46
SL1-XT	MSU Billings	Billings	1309	478
61C	Montana Tech	Butte	725	164
11E	COT Butte	Butte	76	25
51	DPHHS	Butte	100	23
SL1-STE	SFDB	Great Falls	164	49
11C	GT COT	Great Falls	218	120
61	MSU Northern	Havre	492	129
61	Western Montana College	Dillion	612	80
61C	Montana State Prison	Deer Lodge	391	72
11C	Pine Hills School	Miles City	99	63
61C	Warm Springs Hospital	Warm Springs	307	71
51	Job Service	Kalispell	85	96
51	MDC	Boulder	182	54
11C	Justice	Billings	195	47
			24453	5061

APPENDIX D. Major Project Status

These slides were part of the major project reporting to the Legislative Finance Committee on October 8, 2004.

Report Key

Stoplight Reporting: **Green** = Good/Low Risk **Yellow** = Caution/Medium Risk **Red** = Danger/High Risk

Project Status: on hold, pending or active

PMO: project management office being used

IV&V: Independent Verification & Validation of project status

Budget: Overall Project Budget in U.S Dollars

Project Size: Small = < \$300,000 Medium = \$300K - \$750K Large = > \$750,000

Risk: overall risk assessment H= High, M= Medium, L= Low

Due: Scheduled project completion date

Overall Condition: evaluation (good, caution or danger) of project's scope, budget & schedule

Scope, Budget, Schedule: actual & planned progress as a percentage of the total plan or subplan

Risks: top 3 risks affecting the project & their associated severity

NOTE: Agencies do not use a consistent project methodology for project accounting at this time. Analysts are required to interpret the reports and make adjustments to fit a common format.



INFORMATION TECHNOLOGY SERVICES DIVISION



Justice - Team 261 Project

The project is focused on applying Business Process Reengineering (BPR) and supporting technology to improve efficiency and services within the Department of Justice, Motor Vehicle Division. The project is made up of three components: Titling and Registration, Driver Control and Driver Licensing.

Project Status: Active		Overall Condition: Good												
Sponsors: Larry Fasbender, Dean Roberts, Steve Tesinsky MPO: yes IV&V: pending	Budget: \$20M Size: Large Risk: Medium Due: 01/08	<table border="1"> <caption>Progress Data (Estimated from Chart)</caption> <thead> <tr> <th>Category</th> <th>Planned (%)</th> <th>Actual (%)</th> </tr> </thead> <tbody> <tr> <td>Scope</td> <td>~35</td> <td>~30</td> </tr> <tr> <td>Budget</td> <td>~25</td> <td>~20</td> </tr> <tr> <td>Schedule</td> <td>~35</td> <td>~30</td> </tr> </tbody> </table>	Category	Planned (%)	Actual (%)	Scope	~35	~30	Budget	~25	~20	Schedule	~35	~30
Category	Planned (%)	Actual (%)												
Scope	~35	~30												
Budget	~25	~20												
Schedule	~35	~30												
Issues:	Risks: H M L	Next Steps:												
1. Workflow Support Strategy	R1-M: Timely staffing of project R2-M: Workflow support strategy	<ul style="list-style-type: none"> • Front End Reengineering continues • Registration Business Implementation continues • COTS System Review complete • Accounting track resumes • Forms & Correspondence track begins • Driver Control use cases continue 												



INFORMATION TECHNOLOGY SERVICES DIVISION



Judiciary - Court Automation Project

This project will update the Judicial case management systems through an implementation of Full Court; and the development/rollout of a graphical user interface for the Judicial Case Management (JCMS).

Project Status: Active		Overall Condition: Caution
Sponsor: Jim Oppedahl 444-2627 MPO: no IV&V: no	Budget: \$3.6M Size: Large Risk: Medium Due: 06/05	
Issues:	Risks: H M L	Next Steps:
<ol style="list-style-type: none"> The funding issue is very significant and is pushing the proposed schedule out. Obtaining resources and keeping them. 	R1-H: May not be able to complete project due to lack of funding R2-H: Losing Key Personnel R3-M: No IV&V	<ul style="list-style-type: none"> Continue rollout of Full Court as budget allows. Complete development of JCMS GUI interface with District Clerks Association Test JCMS modifications <p>* Scale is based on the Full Court rollout.</p>



INFORMATION TECHNOLOGY SERVICES DIVISION



Administration - Public Safety Radio

This project will create a state-wide public safety radio system implemented through a series of regional installations. (**Note:** Information shown is for Northern Tier Interoperable Project (NTIP) only)

Project Status: Active		Overall Condition: Good
Sponsor: Jeff Brandt 444-3988 PMO: yes IV&V: no	Budget: \$5.7M Size: Large Risk: High Due: 11/05	
Issues:	Risks: H M L	Next Steps:
<ol style="list-style-type: none"> Maintaining cooperation among 16 Northern Tier Consortium members. Clarification of procurement options for equipment and construction. 	R1-H: Condensed Time Schedule (13 months) R2-L: New personnel R3-H: Establish mechanism to work with consortium. R4-M: Funding	<ul style="list-style-type: none"> Project Charter MOU's RFP / Procurement Process Identify Vendor



INFORMATION TECHNOLOGY SERVICES DIVISION



Administration - E-911

The project will implement state-wide E911 service, including Phase II wireless capability. Enhanced 911 provides the phone number and location information to the Public Safety Answering Point (PSAP). Phase II wireless provides the phone number, location and GIS coordinates to the PSAP. The project also includes an emergency notification service and a redundant network.

Project Status: Active		Overall Condition: Good
Sponsor: Jeff Brandt 444-3988 PMO: yes IV&V: yes	Budget: Approx. \$10M Size: Large Risk: Large Due: December '05	
Issues: 1. Diverse technologies at each PSAP. 2. PSAPs have different upgrade costs and financial positions	Risks: H M L R1-H: Participation by majority of PSAPs R2-M: existing contracts with local exchange carriers	Next Steps: • Contract negotiations

ITSO INFORMATION TECHNOLOGY SERVICES DIVISION

Commerce - Call Center

The project involves developing a new Call Center, inventory management and marketing system for the Montana Promotions Division's Travel Montana Program.

Project Status: Active		Overall Condition: Good
Sponsor: Betsy Baumgart 841-2872 PMO: no IV&V: no	Budget: \$950K (originally \$1.9M) Size: Large Risk: Medium Due: 6/30/05 est.	
Issues: 1. Procurement restarts	Risks: H M L R1-M: Integration w/ current IT Architecture	Next Steps: • Complete scoring proposals Sept 21- Oct 8 • Product demo's with top vendors Nov 4-5 • Award contract November 26

ITSO INFORMATION TECHNOLOGY SERVICES DIVISION

Corrections - Project OTRACK

The new system will provide comprehensive correctional system management to replace the aging Adult Corrections Information System and the incomplete ProFiles system.

Project Status: Active		Overall Condition: Good
Sponsor: Bill Slaughter 444-3901 PMO: probably IV&V: no	Budget: \$1M Size: Large Risk: Medium Due: 2006	
Issues: 1. Funding dependent on Federal grant approval or EPP request 2. Non-standard database	Risks: H M L R1-H: lack of funding R2-M: Supporting an Informix Database environment. R3-M: Integration Vendor Terms & Conditions	Next Steps: <ul style="list-style-type: none"> • Resolve funding source • Determine optimum hardware and staffing plan • Development of a project plan

INFORMATION TECHNOLOGY SERVICES DIVISION

Labor - UI4U (MICA)

The new system will take Unemployment Insurance Claims over the Internet. The objective is to reduce claim center workload and delays in filing.

Project Status: Active		Overall Condition: Good
Sponsor: Wendy Keating: 444-3299 PMO: yes (available after project underway) IV&V: no	Budget: \$750K Size: Medium Risk: Medium Due: 12/04, 3/05	
Issues:	Risks: H M L R1-L: Unexpected loss of key programming staff	Next Steps: <ul style="list-style-type: none"> • Complete Phase I (File Initial Claim) testing • Continue coding on Phase II (Continued Claim) • Develop process for handling internet claims

INFORMATION TECHNOLOGY SERVICES DIVISION

Labor & Industry - Project Phoenix

Phoenix is the transfer of the Unemployment Tax Program back to DOLI. The pre-POINTS UI Tax system, Montana Automated Collection (MAC), will be revived and modified to meet statutory, rule and technical changes which have occurred since 1999.

Project Status: Active		Overall Condition: Good
Sponsor: Wendy Keating: 444-3299 PMO: yes IV&V: yes	Budget: \$4M Size: Large Risk: Medium Due: 12/04	
Issues:	Risks: H M L	Next Steps:
	R1-H: Data Conversion R2-H: Loss of personnel	<ul style="list-style-type: none"> • Launch Federal Reporting Functions 11/1/04 • Launch Experience Rating Functions 12/31/04



INFORMATION TECHNOLOGY SERVICES DIVISION



Montana State Fund - ClaimCenter Project

ClaimCenter is a claims processing package application system being installed as a replacement for the existing Claims Management System (CMS). The project has completed the Initiation and Requirements phases. It is currently in the Design phase.

Project Status: Active		Overall Condition: Good
Sponsor: Layne Kertamus 444-5993 PMO: yes	Budget: \$2.5 million Size: Large Risk: Medium Due: 10/1/2005	
Issues:	Risks: H M L	Next Steps:
1. Upgrade to ClaimCenter 3.0	R1-H: Data Warehouse Interface R2-L: Medical Payment Timeline	<ul style="list-style-type: none"> • Complete Design of Package Application, Interfaces, and Conversion system. • Get final user and sponsor sign-off of system design • Finalize Construction project phase based on design documents • Begin Construction Phase



INFORMATION TECHNOLOGY SERVICES DIVISION



Revenue -Income & Corporate Tax (ICT)

ICT is the next phase of the replacement of the POINTS system. ICT encompasses the rollout of the Corporate License Tax and Individual Income Tax modules of the GenTax Software solution.

Project Status: Active		Overall Condition: Good
Sponsor: Don Hoffman 444-3587 PMO: yes IV&V: yes	Budget: \$8.19 million Size: Large Risk: Medium Due: 12/04	
Issues:	Risks: H M L	Next Steps:
1. Interest and Penalty on Corp pass throughs	R1-H: Data conversion R2-L: Virtual Machines	<ul style="list-style-type: none"> Rollout Corporate Tax Rollout Individual Income Tax

ITSD

INFORMATION TECHNOLOGY SERVICES DIVISION

Secretary of State - Statewide Voter Registration Service (SVRS)

SVRS is a requirement of the Help America Vote Act (HAVA) 2002. By January 1, 2006 every state is required to have a single centralized, interactive, list of every legally registered voter.

Project Status: Active		Overall Condition: Good
Sponsor: Pat Haffey 444-5372 PMO: yes IV&V: yes	Budget: \$1.5 M Size: Large Risk: High Due: 01/06	
Issues:	Risks: H M L	Next Steps:
	R1-H: Short time frame in which to complete phase 1 R2-H: Resource availability	<ul style="list-style-type: none"> Define and document system goals, scope and benefits, currently underway. Schedule meetings with the Montana Election Technology Commission (ETC), waiting for responses from the ETC. Contact surrounding states for information as to their HAVA effort.

ITSD

INFORMATION TECHNOLOGY SERVICES DIVISION

Glossary

A common problem in the IT industry is the proliferation of terminology and lack of consistency and standardization. The definition of a particular term is often dependent upon the context and the technical environment where it is used. This glossary has been included to ensure that all readers understand the terms used in this document.

Anchor Tenant	A large consumer (e.g., the state) of technology services that, through its size and commitment to procure services, provides incentive to the private sector to invest in technologies that can then be used by others (e.g., citizens, businesses, other government entities, etc.).
Application	A set of software programs that delivers a common set of functions and processes. Examples would be an inventory application, accounting application, and licensing application.
ATM Switch	An ATM (asynchronous transfer mode) switch is a dedicated switching technology for the high-speed transfer of data.
Bandwidth	The capacity of a network to carry data, usually expressed in bits per second (bps).
Best Practices	An implemented practice that has been shown to perform optimally through time. As processes and procedures are defined and implemented, patterns can be seen that show the best process and procedure for a business unit, functional area, or type of functionality.
Business Case	A structured proposal for a project that supplies information to decision makers. A business case usually includes an analysis of business process performance and associated needs or problems, proposed alternative solutions, assumptions, constraints and a cost-benefit analysis.
Business Continuity	The sustaining of normal business operations during both expected and unexpected events that would otherwise impair the normal functioning of the state. This involves around-the-clock ability to recover from both man-made and natural disasters and includes assets beyond information technology such as facilities, personnel, critical knowledge, and physical information.
Business Function	A logically related series of activities which, taken together, represent the primary responsibility of a single business unit.
Business Process	The manual or automated process steps that are performed in order to accomplish a service. Example: In producing payroll checks an organization must collect employee timesheets, verify timesheets, run pre-payroll reports, run payroll check runs, and sign payroll checks.
Business Process Reengineering (BPR)	BPR is the process of documenting current business processes, proposed new business processes, and a plan for getting from the current to the proposed process.

Change Management	Management processes set up to ensure that all software or hardware changes made to IT systems have been done in accordance with predefined guidelines. These guidelines are put in place to reduce the risk of introducing unexpected errors or system downtime.
Customer	Citizens, businesses, federal, local, and tribal governments, and other organizations and stakeholders that utilize Montana state services.
Cyber Attack	Cyber attacks target the computer or telecom networks of critical IT infrastructures, and typically target IT in three different ways: first is a direct attack against an information system 'through the wires' alone [i.e. hacking], second, the attack can be a physical assault against a critical IT element, or third, the attack can be from the inside as a result of compromising a trusted party with access to the system.
Data Center	Highly secure, fault-resistant facilities housing computer servers, data storage facilities or communications equipment.
Disaster Recovery Plan	A document that lists all activities required to restore a system to the conditions that prevailed before the disaster occurred, for example, after power failure.
E-Commerce	Business transactions that are conducted via the Internet or other electronic media.
Economies Of Scale	The concept of increasing efficiencies of operation as the size of the operation increases. This is due to fixed costs being spread over a larger base.
E-Government e-Gov Enterprise	The provision of government services via computer or Internet-based technology. All agencies of the state, including the University system and participating local government and educational entities, working collaboratively to use, share, and leverage the investments made in information technology. To this end, agencies of the state and participating entities share systems and networks, use standard software and hardware, and train employees in common techniques.
Enterprise Security	Integrated, enterprise-wide protection of IT assets, data, and resources. This includes accessibility, privacy, data integrity, and accuracy of information. It also includes the availability of resources entrusted to government by its customers.
E-pass	A single sign-on service for customers using secured services on the state's official website. It allows customers to login once and use all eGovernment services they have been granted access to.
Gap Analysis	A methodology for comparing system capabilities against requirements.
GIS	Geographic Information Systems. These systems gather, process, store, and display information about natural resources, land ownership, roads, legal boundaries, critical facilities, and other data which has a geographic aspect to it.

H.323/.320	H.323 is a collection of communications protocols that allow multimedia communication over packet based systems. It enables voice, video conferencing and data transmission via the internet as opposed to dedicated telephony circuits.
Imaging	Imaging refers to the capture of hardcopy documents in electronic form. Documents are scanned and the image is stored as thousands of bits. Key words are associated with the documents so that users can find the documents by keyword search. Many imaging systems also store electronic documents that do not need to be scanned (spreadsheets, digital photographs, Word documents, etc.)
Information Technology IT	Technology, typically in the form of computers, software, networks, telecommunications, electronic storage, etc., that enables the storage, communication, manipulation, and access to information.
Interactive Voice Response System	A function whereby callers push buttons on their phone in response to voice prompts in order to listen to recorded information, have their calls automatically routed to an appropriate party or enter information in a computer database by telephone.
IT Infrastructure	All information technology hardware, software and personnel that cumulatively provides a common foundation of equipment and applications that is shared among all entities of the enterprise. Examples: network hardware/software, LAN/WAN, mainframe and mid-tier computer equipment, storage devices, security hardware/software, etc.
ITB	Information Technology Board established by the Montana Information Technology Act (see MITA) with top management representation from state agencies, local government, the legislature and the private sector.
ITMC	Information Technology Managers Council is established by the Department of Administration to provide input and feedback to the Department concerning the technology needs of state agencies, providing advice and counsel on a wide range of technological issues within state government. All state agencies have representation on the Council.
Key system	Key systems include a broad range of office sized telephone systems that link several telephone sets to a central processing unit. Users can take advantage of multiple features and share incoming lines.
LFC	Legislative Financial Committee. An interim standing committee of the legislature that hears (among other things) reports on the progress of major IT projects on a quarterly basis.
Mainframe	A large central computer that can run dozens of applications and support thousands of simultaneous users.
Mid-tier server	A server who's size is smaller than a mainframe computer and larger than a standard PC. A mid-tier server is a multi-user computer usually designed to handle one or a small number of applications. Mid-tiers computers can range from the cost of a PC to well over \$100,000.

Open Source Software	Software for which the underlying "source" code (the program text as written in its native language C, C++, FORTRAN, etc.) is readily available for inspection and modification by any interested person. This contrasts with most commercial software, for which the source code is a closely guarded trade secret. Open source often refers to the current interest in Linux and Linux based software.
Operating expenditures	Agency funds that are used to run the agency business, but excluding pass-through payments. Personal services, inter-agency transfers, operating expenses, equipment, and debt service are examples of operating expenditures.
Operating system	The operating system is the primary software running on a computer. It controls all applications on the computer, handles security, and manages the flow of data to and from the storage devices.
Outsourcing	Relying upon a non-State entity to supply services, products or support.
Pass-through payments	Agency funds that are disbursed to citizens and businesses as part of standard agency services. Examples of pass-through payments are unemployment benefits, housing subsidies, payments of Federal/State funds to local school districts and insurance payments.
PBX	Private Branch Exchange. A PBX, sometimes known as a phone switch or phone switching device, connects several office telephones in a organization with the public telephone network
PDA	Personal Digital Assistant. A handheld computer that provides a calendar and organizer for personal information. A PDA normally contains at least one database with names and addresses, to-do lists and a notepad and is often connected to a desktop PC.
Portal	A high-traffic Web site with a wide range of content, services and links. It acts as a value-added middleman by selecting the content sources and assembling them in a simple-to-navigate and customized interface for presentation to the end user. Portals typically offer such services as Web searching, news, reference tools, access to online services, and communications capabilities including e-mail.
Post Implementation Reviews	Structured sessions involving members of an IT system development team and used to assess positive and negative outcomes from a development effort. These are used to discuss lessons learned and help encourage improvements in development processes on future projects.
Project Management	Project management is the application of knowledge, skills, tools and techniques to project activities to meet project requirements on budget, schedule and scope. There is a defined set of processes and standards within project management.
Quality Assurance Practices	Activities and processes that are implemented in order to ensure IT system conformance to expected requirements, standards, and characteristics.

Server	A computer that runs an application(s) and provides services to multiple users. Servers range in size from mainframes to PCs. Servers can store files and databases, run applications, and host web sites.
Service(s)	A function that provides access to public information, enables business activity, and addresses the needs of state customers.
Shared Information	Common electronic information of separate state government organizations that is stored and maintained using common IT assets in order to provide optimum customer service. This sharing includes the actual information artifacts such as data, images, documents, etc., and can also encompass the methods or mechanisms needed to create, store, and retrieve the information.
Staff Augmentation	The use of non-State contractors to perform IT staff functions that would normally be performed by State employees if the agency had the ability to hire.
State	All government officials, agencies, and organizations that together work to serve state government interests.
Strategic Initiatives	Strategic Initiatives are composed of IT projects, processes and methodologies that will be used by the State to achieve its IT Vision. These initiatives are enterprise-wide strategies to reach multiple statewide goals.
Strategies	Measurable activities to be performed for the purpose of attaining the goals defined in the Strategic Plan for IT.
SummitNet	The State of Montana's high-speed digital communications network. The next generation of SummitNet will completely integrate voice, video, and data transmission services around the state.
Virtual servers	A software server image that runs on a shared server. A shared server may have multiple virtual servers running on it. Each virtual server appears to the users and operates as if it was running on its own separate hardware.
VOIP	Voice Over Internet Protocol - This is the practice of using an Internet connection to pass voice data using IP instead of using the standard public switched telephone network. This can avoid long distance telephone charges, as the only connection is through the Internet.
Wireless	The connection of electronic devices through the use of radio waves, without the use of wires. This typically refers to communications using telephones or computer devices.



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